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PART FIRST.

ORIGINAL COMMUNICATIONS.

ART. I.—*Cases in Midwifery, with Remarks.* By THOMAS F. COCK, M.D., Physician to the New York Hospital.

THE following cases are published, not from any novelty or peculiar interest that they possess,—for such are occurring every day in a crowded city—but from a conviction that it is the duty of every one to present the experience he has been enabled to gather, in order that some industrious compiler of statistics may use his little store of materials to benefit the profession. In a department like midwifery, where statistics are so readily obtainable, and where precedents are of so much value in directing practice, there is less excuse for neglecting to record cases, than in other departments, where a doubt in diagnosis, or perplexity in choosing the proper means of relief, would deter from committing results to writing.

Fifteen years of professional experience have enabled me to collect the accompanying cases.

FACE PRESENTATIONS.—Face presentations were met with eight times. In four cases, complications existed which invalidated the life of the child; viz.: twice the fœtus was anencephalous, once rupture of the uterus existed, and once the funis presented with the face, and as much delay had

occurred through previous manipulation, perforation was employed as the best mode of relieving the mother. Regarding these as necessarily fatal to the child, the *results* were: to the mother, favorable in all except the case of ruptured uterus; to the child, favorable in four cases; necessarily dead, four. *Mode of delivery.*—Unassisted, six cases; by perforation, two cases. *Length of labor.*—The longest was fourteen hours; the shortest four hours. *Presentation.*—Noted in four cases, three of which were left mento-iliac, one right mento-iliac.

PRESENTATIONS OF INFERIOR EXTREMITIES.—Under this head are included presentations of breech, knees, and feet, as no difference in the plan of treating such varieties was deemed necessary.

The total of cases noted is twenty-seven. Of these, there occurred, as single births, twenty; while seven were in connection with twins.

Results.—No fatal result to mother occurred. Of the children, twelve are recorded as still-born, of which two were putrid and two others premature. Deducting these, eight births out of twenty-seven were still. Of the still-born, three are noted as multiparous, four as primiparous. *Sex.*—Eleven girls to twelve boys are noted; in the other cases not noticed. *Recurrence.*—In one case, all the births (four) were by the breech; in another, all (five) were breech; in one there were two breech deliveries out of eight labors. The only case worthy of special record is as follows:

Case 3.—Patient primipara, aged 32 years. The fœtus presented by the breech, its abdomen being toward the abdomen of the mother. The body of the child was rotated so as to bring the face toward the sacrum after the delivery of the arms, but all manual efforts for the delivery of the head failed, though assisted by ergot. It was then suspected that the head might be hydrocephalic, and accordingly a puncture was made through the orbit with a trocar, which was the only instrument at command. Delivery was then readily effected. This was an unusual complication of diffi-

culties, the position was the worst of the breech presentation, and the diagnosis of hydrocephalus was but problematical, as no fluctuating point could be reached. It was noticed that immediately on ceasing tractive efforts the head receded, but the true state of the case was only suspected until confirmed by the effect of puncturing the cranium. The long continued efforts (thirty-two hours) resulted in vesico-vaginal fistula. This patient was under my observation as an hospital nurse for fifteen years, and managed to perform her duties without exciting suspicion of her condition.

Presentations of the Superior Extremities and Cases of Version. *Case* 1.—Seen in consultation. Right hand of a premature fœtus presented. Delivery effected readily by version.

Case 2.—A multipara pregnant with her third child. Before the membranes ruptured, a presenting part was detected through the partially dilated os, which was supposed to be the elbow, but when the waters escaped, this was found to be the right foot. In the expectation that labor would progress without serious difficulty, time was allowed for further development; but it was ascertained that instead of the foot descending, a hand was substituted. Action being non-avoidable, the hand was passed into the uterus, a foot seized, and by it version was effected. The child, a male, was resuscitated with difficulty. Phlegmasia dolens supervened during the second week after delivery, but the patient eventually recovered.

Case 3.—Multipara, aged 25. The physician in attendance came for me four hours after the rupture of the membranes. The right hand was found presenting. Version was readily effected; but there was no pulsation in the cord, and the child, a male, was still-born.

Case 4.—Multipara with fourth conception. Ten days before labor commenced she had hemorrhage, but it did not recur at the time of labor. The patient was seen twelve hours after the commencement of pains, and the right arm was found protruding from the vulva much swollen. As the

pregnancy had not advanced to full term, the possibility of spontaneous evolution suggested itself; but it was deemed more advisable to turn. Considerable difficulty was experienced in effecting version; the small size of the limb prevented a firm grasp, and powerful uterine contractions produced much annoyance in manipulating. Success was finally obtained by passing the hand over the breech in utero and steady traction.

Case 5.—*Version.*—Referred to as tenth case of twins. The first child having been delivered by forceps, in consequence of convulsions, the second was turned.

Case 6.—A multipara in her third labor. The child presented with both hands. In ineffectual efforts to turn, her attendant had exhausted his strength, and solicited assistance. The right foot was found in the vagina with a fillet upon it, the left foot higher up, both hands posteriorly much swollen, and finally a loop of the cord not pulsating. By the aid of chloroform, version was effected with considerable exertion, and the body delivered as far as the shoulders; with these much difficulty was experienced, as the arms were greatly swollen. This done, the body of the fœtus was turned strongly over the mother's abdomen, and the head easily delivered. Child dead.

Case 7.—A multipara, aged 29, with her tenth conception, and in the seventh month. The child presented by the right elbow. Version was effected without difficulty, and a living female child delivered.

Case 8.—Referred to as Case 13 of twins. The second child presented with cord, hand and foot. Version was attempted without chloroform, but though the foot was brought externally, the uterus prevented turning, until relaxed by chloroform. The child, a male, was still-born.

Case 9.—A primipara. About nine hours after the commencement of labor, she was found with a hand and head presentation. Delay was advised, in hopes of natural delivery; but, after five hours, no progress being made, the application of forceps was commenced. Immediately on

passing in the hand the head receded, and the fœtal hand descended. No alternative was left but version, which was effected without much difficulty. The child, a girl, gasped but once.

Case 10.—A multipara, aged 23, with her second conception. The child presented by the right elbow. Version was easily accomplished; but the child, a male, was still-born.

Case 11.—A multipara in her fourth labor. She had been under the care of a student, who, on ascertaining the presentation to be of the superior extremity, sent for assistance. The previous labor had been tedious. The right arm was found protruding from the vulva, and the uterine contractions energetic. Chloroform was administered with happy effect, in relieving the contractions, and version commenced. The right hand was first tried, and came immediately in contact with a very salient sacral promontory; the cord did not pulsate. The child lay with the abdomen to the mother's abdomen, the right arm being extruded. With my right hand the foot could not be reached, but on substituting the left, version was easily produced. No delay was experienced until the head engaged, when owing to the diminution of the antero-posterior diameter, by the projecting promontory, the head became arrested and required much exertion to free it. The child, a boy, was dead before the operation.

Case 12.—A multipara, æt. 27 years, in her third labor. The presentation was funis with the right hand. Version was effected readily under the influence of chloroform, and a male child born in an asphyxiated condition. It was resuscitated.

Case 13.—A multipara, aged 40 years, with her fifth conception. Case referred to as fifth of rupture of uterus. The patient was in an apparently desperate condition, but version seemed the most feasible means for a favorable issue. No trouble was experienced in finding the feet or in delivering. The foot was lifted over the distinct edge of a rent in the

right side of the uterus. The child, a male, was dead before beginning. The mother recovered.

Remarks.—Thirteen cases are given in which version was required for delivery, of which the results were to the mother favorable in all, to the child favorable in only three instances. Of these one was premature, and five were certainly dead before the operation was commenced. The sex of the children is given in nine cases, of which seven were male and two female.

In performing version, no effort has been made to grasp both feet, but a selection of the foot opposite to the presenting hand has been attempted, and this experience proves to be the most satisfactory mode of manipulating. In cases where one foot has been brought externally, and delay has occurred in producing turning, it has been thought that benefit has ensued from passing the hand beyond the breech, while traction is made on the foot in the vagina, and thus, by the double purchase, some refractory cases have yielded.

Convulsions.—Cases of eclampsia only have been placed on record, though several more have been visited. In some, a single visit, perhaps, has been made, and the history not obtained, with the requisite minuteness to warrant any deductions from them. Of the seven cases the following particulars are recorded. *Variety of convulsion.*—In six, epileptiform; in one, hysterical. *Time of occurrence.*—During labor, in all, seven; continued afterward in four cases. *Number of labors.*—All were primiparous except one, the hysterical case. *Number of convulsions.*—In two, four; in one, eight; in one, fourteen; in one, eighteen; in one, a single hysterical paroxysm; and in one, fifteen. *Number of children.*—One was a case of twins; all the rest were single births. *State of the urine.*—Noted in five cases, in all of which albumen was found. *Premonitory symptoms.*—In three, only pain in the head was spoken of. Œdema was a prominent symptom in all except the hysterical case, and in this the feet alone were œdematous. *Mode of treatment.*—In all but one venesection was used; chloroform was employed in four cases; tartar emetic in two cases; enemata, sinapisms,

and cups were used, but not noticed, in all. *Mode of delivery.*—In three cases natural efforts effected expulsion; in four, forceps were used; and for the second twin, version was employed, the only case. *Results.*—Favorable to mother in five cases, two deaths. Of children four were saved, and four were still-born, both twins being dead.

Of these cases the most worthy of record was the twin-birth. When seen, the woman appeared past all hope of recovery. She had had fifteen convulsions, was perfectly insensible, the pulse being feeble and very rapid. Delivery was attempted rather from a consciousness of duty than with any hope of beneficial effect, and was produced, the first child by forceps, the second by version. It was presumed on leaving the patient that she would soon die; but on meeting her attendant, some little time after, he informed me that she had recovered,—an exemplification of a cardinal rule in midwifery, not to suffer a woman to die undelivered.

Hemorrhage.—No record has been kept of hemorrhage, in connection with abortion. Twenty-eight cases of different varieties of flooding have been met with, in some instances slight, in others serious, and in one only (Case 3rd of placenta prævià) has there been a fatal issue. The instances enumerated as slight have been mostly where bleeding occurred with retained placenta, and, with these exceptions, no case has been deemed worthy of record as one of flooding, unless some obvious general effect upon the patient was produced.

Causes.—Six cases of unavoidable hemorrhage are given under the head of placenta prævià. Six are recorded with retained placenta. Two with "uterine hydatids." Two of placental apoplexy. Of the remainder, inertia of the uterus was the cause in four cases; detached placenta in one, and in five no reason is specified.

Time of occurrence.—Before labor in fourteen cases. During labor in ten. Before the delivery of the placenta in fourteen; (the cases of placenta prævià are reckoned under all

these heads.) After the delivery of placenta in six. Secondary hemorrhage is noticed in one instance.

The number of cases of flooding is apparently large, yet special efforts to prevent this accident have always been made. A uniform practice was early commenced, and has been constantly adhered to, of placing one hand over the fundus uteri as soon as the head was delivered, and maintaining steady pressure as the child was expelled, which was only *personally* remitted during the necessary attention to the child, until the placenta was delivered. An attendant's services have—while engaged in tying the cord, and then only—been substituted for my own compression. During the last two or three years, as a means of preventing flooding after delivery, a small book wrapped in a napkin has been placed over the uterus and the binder *tightly* applied.

With all these precautions there have been some instances where more blood was lost than was desirable. In such cases reliance has been placed on ergot, which has proved so far, a satisfactory anti-hemorrhagic. This drug has also been given when flooding was anticipated from its occurrence in former labors. In the special cases as those of unavoidable hemorrhage, etc., the treatment is given under the appropriate heads.

As a means of preventing a return of flooding, manual compression has been most relied on even in preference to, though not to the exclusion of, the use of cold in its various forms. In the severest case of flooding from inertia, pressure was maintained by my own hands for five hours consecutively, a service correctly appreciated only by those who have been similarly employed. Nevertheless, it seemed at the time the only measure that prolonged life. As a *temporizing* measure in flooding before labor or before delivery, the alum plug has been relied on with much confidence, and in no ordinary case has it disappointed; but its use is attended with one serious inconvenience in cases where operative measures become necessary. So great a corrugation of the vagina is produced, and such dry and obscuring coagula are

formed, that no slight embarrassment in manipulating occurs. With this objection, however, it is a remedy of value, and in hemorrhages connected with abortion it has been found peculiarly useful.

The following cases are, perhaps, worthy of special record :—

Case 1.—While visiting Bellevue Hospital wards, my attention was called to a woman who had just been delivered of a male child, after a natural labor followed by spontaneous expulsion of the placenta. Notwithstanding that the uterus appeared to be well contracted, blood continued to flow. On examining, there was found projecting from the vulva a tumor of fleshy consistence, and about two inches broad, which on being traced up, was found to be attached to the anterior lip of the os uteri, so that its length was about four inches. From the bed at least a quart of clotted blood was removed. Pressure aided by ergot failing to control this bleeding, a hand was passed into the uterus and a clot removed. The stimulus of the hand together with strong external pressure, seemed to be efficient in checking the flooding. Subsequently ergot was given more rapidly, and there was no further flow. About four weeks after confinement an examination was made with the speculum, and on the anterior lip was a projection about one inch long, half an inch wide, and about one quarter of an inch raised above the surface. The os uteri presented an excoriated surface from which a bloody purulent fluid was oozing.

Case 2.—The following case was published in the *N. Y. Med. Times* for August, 1854, from which an abbreviation is now made. A multipara, aged 40 years, about 6½ months advanced in pregnancy, had been exerting herself during the morning, and while conversing in the afternoon she became pale and faint. She was assisted to bed, and soon became nauseated, and complained of distressing distention of the abdomen. Previous to this occurrence her abdomen had been quite small for the supposed time of pregnancy; now, however, the increase in size not only attracted her own attention

but became manifest to bystanders. Both bowels and bladder had been evacuated during the day. When seen about three hours after this attack the patient was pale and faint, with a cool surface, feeble, compressible, rather slow pulse, disposed to gape and to vomit. The principal complaint was of the sense of distention, which she spoke of as a "feeling like bursting." On examining the abdomen the uterus was found distended to the size of full term of pregnancy, the portion of the organ in the right hypochondrium appeared to be more elevated than the rest, and there was an obscure sense of fluctuation in this region. Percussion detected flatus in the epigastric region, while, by the ear, neither fœtal pulsation nor placental murmur could be discovered. Vaginal examination discovered no hemorrhage, and the cervix uteri was undeveloped. During the next afternoon labor commenced, and a small quantity of dark fluid-blood was discharged. About nine hours after this, the os being well dilated, the membranes were ruptured manually, a large quantity of liquor amnii escaped, and the next contraction expelled the fœtus with the placenta, and a large quantity of clotted blood, in amount, as was subsequently ascertained, at least two quarts. The placenta was unbroken on its fœtal surface, but the maternal aspect bore evidences of detachment over fully three-quarters of its extent. The patient recoverd.

Another instance of this form of hemorrhage presented itself some years since. In this case the labor was progressing satisfactorily, when the patient became faint, sick at the stomach, restless, and exclaimed that she was going to die. No blood escaped from the vagina. After a momentary lull of contraction, pains came on vigorously, the liquor amnii was discharged, uncolored, but with the placenta several large clots of blood were expelled. This woman also recovered.

Case 3.—*Secondary Hemorrhage.*—A primipara was delivered on the 12th of May. She had a slow getting up, and while engaged in washing, June 1st, had some bloody dis-

charge. On the 4th of June, twenty-three days after delivery, while at church, and standing at the baptism of her child, flooding came on. She continued to stand until she became faint, and was carried home. By the application of ice and a bandage the flooding was checked. Two days after, on visiting her, she was found on the floor, pale and faint, and with some recurrence of bleeding; she was very imprudent in exertion, but recovered after a tedious convalescence.

In one other case hemorrhage, to a considerable extent, occurred on the 10th day.

Placenta Prævia. *Case* 1.—Multipara pregnant with her eleventh child. Five days before delivery noticed a slight discharge of blood accompanied by slight pain. By vaginal examination the os uteri was thick and patulous, but no presentation could be distinguished. The next day but one after, she lost a large quantity of bright blood by gushes, accompanied by pain, for restraining which pills of lead and opium sufficed. On the succeeding day small losses of blood continued. In the evening a small portion of the placenta could be detected over the os, but as the labor advanced the hemorrhage gradually ceased, and no interference was deemed necessary, for the membranes ruptured spontaneously, and with the next contraction the head was expelled. The child, a boy, was apparently lifeless when born, but was resuscitated. Convalescence was protracted and precarious. The patient suffered from fecal accumulation, complicating the effects of loss of blood so as closely to resemble puerperal fever.

Case 2.—A Multipara with her fourth conception, was delivered after a labor of fifteen hours. The first evidence of labor was hemorrhage, and on examination, her attendant discovered a small portion of placenta over the os uteri. At the time of my visit, the patient was considerably blanched and restless, the pulse being feeble. The os was nearly dilated, and each pain caused an increased flow. The indication seemed to be to effect delivery by the contractions of the uterus itself, instead of by forceps, and for this purpose

ergot was given with good effect. Its influence was kept up until delivery was completed, by the expulsion of the placenta with a large gush of fluid blood. The child was still-born.

Case 3.—Referred to as Case 14 of forceps. Hemorrhage came on at the seventh month of gestation, and continued with some intervals until delivery, there being no pain, and the os undilated. Only temporizing measures were used. At the time of my visit, the patient was perfectly pallid, but the uterine efforts were regular, and producing some effect. Nature was making a last rally. Stimulants and ergot failed to effect expulsion, and, as a last resort, forceps were used readily, and a still-born child extracted. The placenta was delivered soon after, but the exhaustion had been too great, and death occurred in less than two hours.

Case 4.—Multipara, æt. 34. When about five months advanced she was jolted in a carriage, and on the following day a colored mucous discharge occurred, which continued more or less for some time. About six weeks after this, while quiet in bed, a gush of blood occurred, about four ounces in amount, and without pain. The os was patulous and no presentation appreciable. The flooding recurred on the following night while dropping asleep. An alum plug suppressed the hemorrhage for four days. On this day hemorrhage returned and labor commenced, and during the day the bleeding was considerable and accompanying the pains. Alum again moderated the flow, and acet. plumb. was given with untoward effect, for nausea and faintness followed its use. By examination the placenta was centrically implanted. The alum had produced constriction and coagula impeding attempts at version. The placenta was now detached manually and the hemorrhage ceased. Very soon after the detachment, the faintness which had required stimulants was relieved. The pains ceasing, ergot was used for their renewal, and, after an interval of about an hour, contractions became ergotic and delivery was effected.

Case 5.—A multipara, æt 22, with her second conception.

While quiet in bed, about three A.M., the patient was seized with flooding, and on my arrival she was in a pool of blood. The os uteri was of the size of half a dollar, and on the right side soft, pulpy, and loose. The woman was not conscious of the commencement of labor, but the examination seemed to develop contraction, and that quite actively. At each pain hemorrhage occurred with a gush and labor, advanced rapidly. The membranes were ruptured, and the flooding ceased. A few pains sufficed to deliver the child, but it was perfectly lifeless.

Case 6.—Multipara with her second child. Four days before my visit, flooding occurred without pain, the woman being at full term of gestation. The tampon was used satisfactorily until to-day. On the recurrence of the bleeding, the placenta was found partially over the os, the head being beyond. Ergot was advised. On my arrival, labor was found to be actively progressing, and the hemorrhage had ceased. No interference was deemed necessary, and delivery of a dead male child was soon accomplished, the detached placenta following very soon. The patient was much blanched from loss of blood, but recovered slowly.

Remarks.—Six cases are given, one of which proved fatal to the mother, while of the children only one was saved. Two cases occurred at the seventh month of pregnancy. The amount of placenta detectable was partial in all except one case, (No. 4,) where it was centrical. The mode of delivery was by uterine efforts, aided more or less by ergot, in four of the cases; by forceps in one case (fatal); and by detaching the placenta in one case. Rupturing the membranes was of service in three cases. Case fourth is the only one in which the practice so ably advocated by Prof. Simpson, has been seen, and in this the effect of detaching the placenta completely was so satisfactory as to warrant a repetition of the practice under similar circumstances. Almost immediately after detachment, the system seemed to rally as if nature appreciated the relief from a fatal drain, and from that moment the patient's condition, before alarming, improved.

Retained Placenta. *Case* 1.—Multipara delivered of her ninth conception without professional assistance. About eighty hours after delivery my attendance was requested to deliver the placenta, which was found to be *in utero*. Ergot to the extent of two drachms was given with the effect of expelling the mass which seemed to have been recently attached over about one-third of its surface. Subsequently she was purged severely, and as was supposed, by anomalous action of the ergot.

Case 2. — *Placenta retained by adhesion.* A primipara, aged 20, delivered after an ordinary labor of seven hours duration. The uterus was well contracted, and a portion of the placenta was found in the upper portion of the vagina; this was hooked down, but the placenta was now ascertained to be adherent. Hemorrhage, to considerable extent, occurred, and the placenta was detached and removed in portions. A binder and compress, with ergot, sufficed to restrain the flooding. On the fourth day a portion of placenta came away, which proved to be final, and the patient recovered, though slowly, having been considerably exhausted by loss of blood.

Case 3. — The same patient, in labor with her second child. From its previous occurrence, adhesion was anticipated in this case, and, to avoid it, firm pressure was kept over the uterus from the time of the expulsion of the head. After the child was expelled, the uterus could be felt enlarging beneath the hand, the patient became tremulous and agitated; suddenly the abdomen subsided with a gush, which was supposed to be the placenta passing. Examination, however, detected the placental mass partially detached, and in the vagina, while about half was attached within the uterus. This was detached manually, and expelled by vaginal contraction. No unpleasant consequences followed. In a subsequent labor this complication did not occur.

Case 4.—Multipara, aged 33, in labor with eighth conception. The labor was of twenty-four hours duration, and the expulsion of the shoulders was delayed. After the

delivery of the child, hemorrhage came on and the placenta was found attached over one-half its extent. It was detached manually, and the flooding ceased.

Case 5.—Multipara, aged 33, in labor with her sixth conception. After a severe labor of twelve hours the placenta was found to be retained by adhesion and irregular contraction. It was delivered by detaching and then removing it.

Case 6.—Referred to as sixth case of forceps. An adhesion, of about two inches in diameter, detained the placenta, and some hemorrhage occurred. Detached manually.

Case 7.—*Hourglass Contraction.*—A primipara, aged 28. The body of the child was violently extruded. Observing some hemorrhage, the hand was introduced, and found a sort of chamber on the right side of the uterus, whence the placenta was manually detached over a small space and uterine contraction expelled both hand and placenta.

Case 8.—*Adhesion.*—A multipara, æt. 30, about six and a half months advanced, in her fifth pregnancy, was subjected to violence which induced flooding and premature labor. After the expulsion of the child the placenta remained, notwithstanding severe expulsive efforts on the woman's part. The hand being introduced, found firm adhesion over about three-fourths of the placenta which was detached, and a contraction expelled the whole.

Case 9.—*Adhesion.*—A primipara was delivered after an ordinary labor of five or six hours duration. After the expulsion of the fœtus the placenta was found in the vagina, and the insertion of the cord was plainly distinguishable. On attempting to hook down the placenta with the finger, a small, narrow strip was found very firmly adherent with the os uteri. In manipulating to detach this, the narrow isthmus gave way, leaving a small portion of the placenta still attached. It was thought more prudent to leave the separation of this portion to time and the natural efforts, than to grope about with the hand, and without a guide in a firmly contracted uterus, and thus manually to injure the organ. The patient progressed favorably up to the tenth

day when she had considerable irritative fever, and a dark and fetid discharge. She recovered. In a subsequent labor adhesion did not occur.

Case 10.—*Adhesion.*—A primipara was delivered after a labor of more than ninety hours. After the expulsion of the child (which was born alive) the placenta was not cast off. As there was no hemorrhage, and the expulsive efforts were strong, no interference was attempted for half an hour. Delivery was then effected by introducing the hand and detaching the placenta over about half its surface.

Case 11.—*Adhesion.*—Case ninth of embryotomy. Placenta required manual delivery.

Case 12.—*Irregular Contraction.*—Case eleventh of embryotomy. After instrumental delivery, the placenta was detained by irregular contraction, and was found by the hand in a separate compartment of the uterus.

Case 13.—*Adhesion.* — The woman had been delivered after an easy labor, but the placenta was retained. At my visit, four and a half hours after the expulsion of the fœtus, the placenta was found partly in the vagina. On tracing it up, a strong adhesion existed to the uterus within the os, which was firmly contracted. Two fingers were used satisfactorily in detaching the adhesion, and then the whole was forcibly expelled with a gush of blood.

Case 14.—*Adhesion.*—A primapara had been delived after a tedious labor, but after waiting an hour her attendant could not deliver the placenta. The placenta was found completely adherent. Chloroform was used to quiet the patient, who was very restive, but it was not deemed expedient to produce its full effect, as a consequence, instead of facilitating, it embarrassed the operation. The effects were allowed to pass away, and then with much difficulty the placenta was detached and removed.

Case 15.—*Partial Adhesion.*—A primipara was delivered after an easy labor of six hours. A portion of the placenta descended into the vagina. On passing the hand into the uterus, the remainder of the placenta was found firmly at-

tached near the fundus. With one hand supporting the uterus, and the other manipulating inside, detachment was easily effected.

Case 16.—*Adhesion and Irregular Contraction.*—A primipara delivered with forceps (Case 28.) for eclampsia. The placenta was found adherent firmly over about three-quarters of its superficies, and in a chamber formed by irregular contraction. It was detached with some difficulty.

Remarks.—Of the sixteen cases given, the *cause of retention* was in fourteen cases from adhesion, and two from irregular contraction. In no case was inertia the cause of delay—a result attributable, it is thought, to the practice of firmly compressing the uterus with my own hand, from the time of the expulsion of the head to the severing of the cord. By pursuing this method, and firmly compressing the uterus afterwards, the placenta is usually found in the vagina. If not so found, there is usually adhesion, which, if flooding coexists, will require prompt detachment. In eight of the sixteen cases, hemorrhage occurred; in seven it was not present to any amount. In all the cases the result was favorable. In manipulating for the detachment of the placenta, it has been found greatly preferable to use one hand externally, to support the uterus, while the other is engaged internally, than to trust to even an experienced assistant. The manœuvre, easily accomplishable in the one method, has been found difficult by the other.

Funis Presentations.—*Presentations of the cord* have occurred in five cases. *Number of labor.*—Mostly multipara, one only being a primipara. *Duration of labor* varied from four hours to two days. *Complication.*—In one case the face presented with the cord, in one the hand and cord came down together, and one was a premature birth. *Sex of children* in all was male. *Mode of delivery.*—The simple cases were left to nature, except the case of two days duration, which was perforated. Embryotomy was also performed where the face presented; the third complicated with the arm suggested version, and in this only was the child saved.

Results.—Mothers all saved. To the child, embryotomy was fatal twice; once the birth was premature; twice compression of the cord caused death; and one was saved by turning.

Twins. *Case* 1.—A multipara, in her tenth parturition, was delivered, after three hours labor, of two girls. No delay occurred between the births; both presented by the head. Two placentæ.

Case 2.—Multipara, delivered of two girls after a labor of twenty-four hours, both presentations being vertex. The patient was completely unmanageable, and during the expulsion of the second fœtus, tossed off the coverings completely, so as to expose the fœtus in its passage. The fœtus was expelled, together with the placenta, the membrane not being ruptured. Single placental mass.

Case 3.—Multipara, about six months and three weeks advanced in pregnancy, confined with two girls, the first presenting by the vertex, the second by the breech. The children died on the day after birth.

Case 4.—Primipara, delivered of a boy after a labor of eight hours, vertex presentation. Uterine efforts now ceased, and were not renewed until forty-eight hours after the birth of the first child, when a girl was expelled also by vertex presentation. Both children were born alive.

Case 5.—Multipara, delivered of her third conception after a labor of nine hours. Two girls, both vertex presentation.

Case 6.—Primipara, delivered of two girls after a labor of forty-eight hours; both vertex; single placenta.

Case 7.—Multipara, delivered of her ninth conception after about one hour of labor. The children were both females. The presentation of the first was unknown, having been born before my arrival; the second was breech; two placentæ.

Case 8.—A primipara, anasarcous for two months, had complained of headache and occasional dimness of vision for some time; urine highly albuminous; both children presented footling, and were delivered with an interval of seven-

teen hours; both lifeless. The mother died on the third day, with granular degeneration of the kidney, as confirmed by the autopsy. No convulsions occurred; single placental mass.

Case 9.—A primipara, delivered of two boys after a labor of fourteen hours; both children presented by the breech, and both were in sacro-anterior positions; there was but one placental mass.

Case 10.—A primipara, delivered, by forceps and by version, of two girls, both still-born. When seen, she was quite comatose, having had fifteen convulsions; the first child was delivered by forceps, the second by turning; the woman was quite pulseless, and appeared moribund, but eventually recovered.

Case 11.—The first fœtus presented with hand, cord, and foot. Delivery was effected by version twenty-one hours after the commencement of labor. Pains then ceased, and were renewed, with partial effect, under the use of ergot; the soft parts became heated, and, as the fœtus seemed dead, perforation and speedy delivery seemed desirable; but this opinion was overruled, and after a delay of thirty-two hours more, a dead fœtus was expelled.

Case 12.—A primipara, æt. 22. The first child presented in the right-occipito-anterior position; the second by the breech. Both were females, and born alive.

Case 13.—A multipara, with her third conception, was in labor about four days. The first child presented right-occipito-anterior, and was born alive; the second presented by hand, cord, and foot, and required to be turned; both were boys, the second being still-born; there were two placentæ.

Case 14.—A multipara, in her sixth labor, was delivered two hours before my visit, of a living male child. Friction had been maintained, but labor did not progress. The membranes were ruptured, and with the second pain after, a female child was expelled, also alive. Both presentations were cephalic; the children were full-sized; the two placentæ were very heavy.

Case 15.—A primipara, aged 33 years. Her labor had been of about forty-eight hours duration when seen by me, and the head of the child, though small and quite movable, had not made perceptible progress for nearly twenty hours. There appeared to her attendant no special cause for delay, for the pains had been sufficiently energetic to effect delivery. The size and shape of the abdomen drew attention, and inquiry was made as to the possible existence of twins, as a cause of delay. After waiting to see the effect of contraction, it was decided to assist with the forceps, which was accordingly done, and a living male child delivered under a moderate influence of chloroform and ether mixed. Another child was discovered, also presenting by the head; but the uterine energies seemed to have been so much impaired as to be unable to expel the fœtus. Ergot was given, and produced some effect. About three and a half hours after the expulsion of the first child, a female living child was born without instrumental aid. There was but a single placental mass. This case is referred to as Case 29 of Forceps Deliveries.

Remarks.—Number of Labors.—Of the fifteen cases, seven occurred with multiparæ, and seven with primiparæ, one being unrecorded. *Sex.*—Noted in twelve labors; of these, two boys occurred twice, two girls seven times, a male and female in three instances. When the sexes have been opposite, the male has been the first born. *Presentations.*—Noted in fourteen cases; of these, two cephalic presentations occurred seven times, two breeches twice, one head and one breech three times, and twice with the second twin, a hand, the cord, and a foot presented. *Results.*—Living births for both twins occurred eleven times; both were still-born twice; and twice only one of the children was dead. One mother died from albuminuria. *Interval.*—In one case, forty-eight hours elapsed between the two births, once thirty-two hours, once seventeen hours, and once three hours; in the others, the second labor came on so rapidly as not to require notice. *Number of Placentæ.*—Recorded in nine cases. Of these, a single mass was delivered five times, and in four cases two placentæ were expelled.

Rupture of Uterus. *Case* 1.—Was seen after about two days labor. For thirty-six hours after the rupture of the membranes, there was little or no pain; the pains then became satisfactory, and the attendant supposed the labor would soon terminate; but the pains ceased, vomiting ensued, the skin became cool and clammy, and the pulse feeble, but the head did not recede, nor had any sudden, sharp pain, been noticed. These symptoms had occurred about seven hours before my visit. When seen, the patient was cool and clammy, pulse almost imperceptible and very rapid, vomiting frequent; over the hypogastrium a soft fluctuating tumor, which was supposed to be the bladder, but was proved not so by the catheter; per vaginam could be felt the forehead, the right orbit being at the right acetabulum. Forceps were tried, to save the child if possible; but the soft fluctuating feel created a suspicion of the nature of the case. The instrument, though locked pretty readily, slipped from the head. The perforator was then used, and a large quantity of bloody serum escaped, and the cranium collapsed and was readily removed by the crotchet. Care was exercised to produce uterine contraction, and stimulants freely used. The placenta was found in the vagina, and removed. The patient lived four hours after delivery, and about eleven hours after the supposed time of rupture. *Post mortem.*—On opening the abdomen, about half a pint of fluid blood was found. The peritoneal coat did not exhibit a rupture positively, but was supposed to be torn in the removal; for in the vicinity of the rent, the uterine tissue was softened. Upon the uterus, in spots, was a slight deposit of lymph, and some pus was found between the bladder and pubes. On opening the uterus, which was large, dark, and somewhat softened, a rent was discovered on the right side, anteriorly and near the neck; the vagina was intact.

Case 2.—A woman, æt. 20 years, who had had one abortion previously, and one severe labor, in which the child was still-born, was seized with labor-pains about forty-eight hours before my seeing her. Labor had progressed favorably

until the head had descended to the cavity of the pelvis. About this time the contractions ceased, but abdominal pain was present, and also vomiting. Her attendant attempted the application of the forceps, but the head receded on the introduction of the second blade. When seen, the patient was pale, livid, and distressed, tossing and complaining when the abdomen was touched, vomiting a yellow fluid, the pulse over 150. Through the abdominal walls the form of the fœtus was abnormally distinct. A perforation existed in the perineum, and a band was found in the vagina, the results of the former labor. The finger detected the head above the pubes. Forceps and embryotomy not being applicable, the question of gastrotomy was mooted, but decided against. The patient died ten hours after the supposed time of rupture, and three hours after the consultation. *Autopsy seventeen hours after death.*—On opening the abdomen, some bloody serum was found, and the fœtus, entirely escaped from the uterus, was lying in about the first obstetric position. In the flexure of the knee a knuckle of intestine rose up intensely reddened and covered with a film of fibrin. The omentum and parietal peritoneum also showed marks of inflammation. The child being removed, the placenta could be seen extruded from the uterus, while the uterus itself was in the right iliac region, measuring six inches in length by four and a half in breadth. The os uteri was not torn, but an inch above it, and on the anterior aspect, a large transverse rupture was found. The anterior vaginal wall was also extensively lacerated. The dimensions of the pelvis were: superior strait, antero-posterior diameter four inches, transverse four and a half; inferior strait, transverse three and a quarter, antero-posterior four and a half. The pubic arch resembled that of a male pelvis. The ilio-pectinal eminence on the right side was quite sharp.

Case 3.—A multipara, æt. 35, in labor with her sixth child. Her previous labors had been easy and natural, with the exception of the first, which was tedious. For about thirteen hours the present labor progressed slowly, with

weak and inefficient contractions. About this time the pains ceased; there was no sudden pain, no outcry or sensation of tearing, and the head, which had presented in the left occipito-anterior-position, did not recede. About seven hours after the cessation of the pains, she was visited and found lying on her back, with a sunken, haggard, and pale countenance, tossing to and fro, complaining of pain over the whole abdomen, right shoulder, and legs, the surface cool and moist, the pulse feeble and about 160. On examining the abdomen, portions of the fœtus could be distinctly felt on the left side, but on the right they could not be distinguished; the head had not receded. After passing the catheter, by which bloody fluid escaped, delivery with the forceps was attempted. The instrument used was of bad workmanship, and the blades yielded when delivery was nearly effected. Perforation then became necessary, and after removal of several pieces of bone, a male fœtus was delivered. The woman lived one hour and a half. No autopsy could be obtained.

Case 4.—Was seen with Dr. Metcalfe, by whom it has been published in the N. Y. *Medical Times*, *Nov.*, 1854. This patient recovered.

Case 5.—This case was reported by Dr. J. S. Monell, in the *N. Y. Medical Times*, Oct., 1854. The patient presented herself at my office about a year after in apparent good health.

The following case did not occur in my practice, but as it has never been published, it is now presented, somewhat compressed from the statement of Dr. E. W. Owen, by whom it was furnished at my request. A woman, aged thirty-seven years, in her seventh confinement, of good health, spare habit and nervo-sanguineous temperament, had suffered no more pain before labor than is usual. Labor commenced about noon; was summoned to, and saw the patient, at seven P.M. On examination, found the membranes protruding, the pains, having a true expulsive character, recurring at regular intervals, and having a good duration, the

presentation perfectly natural, the parts dilatable, well lubricated and cool. At one and a half, A.M., during a strong contraction, the patient complained of acute pain in the back and abdomen, running up in the direction of the umbilicus. The contractions ceased suddenly. The patient, during the pain, remarked that she felt as if she should burst. Made an examination during the pain, there was no recession of the head, no alteration in the form of the abdominal tumor, no perceptible hemorrhage. The patient desired to sit on the chamber, and I retired. She had no sooner got upon her feet than she fainted. I was hastily summoned, and found the countenance pale and sharp, surface cold and clammy, pulse rapid, wiry, and fluttering; made an examination, found the head had not receded; vomiting shortly occurred of dark, red fluid; assistance was summoned; forceps were applied, and a still-born fœtus delivered, followed by two or three quarts of blood. The child weighed between twelve and thirteen pounds. During my absence for aid, a change in the form of the uterine tumor had taken place, the uterus having broken away and occupying the right upper abdomen, the fœtus, the lower and left, the head not receded. Death ensued in less than two hours after the rupture. P.M.—No clots, no inflammation; the uterus was excessively large and firm. The rupture was a bilateral one, two and a half inches in extent of the vagina and cervix uteri at its posterior lip where it forms the *cul de sac.* On incising the uterus from the rent up to the fundus, the walls were found more than double their usual thickness. From this we inferred that such immense muscular power exerting its force from above, together with the large size of the fœtus, was the cause of this unfortunate occurrence.

Autopsy of a Case of Ruptured Uterus.—This case was seen only after death. At the autopsy, the following history was given. The patient, about thirty years of age, had had one instrumental labor; the second natural, and the third the fatal one. Labor pains began on the morning before death, but no presentation could be distinguished; later in

the afternoon the labor seemed nearer its close, but suddenly the contractions ceased, and pain in the epigastric region was complained of with dyspnœa. Forceps were used with great difficulty, and proving ineffectual to deliver, the perforator was used, and with much effort the head drawn down. A handkerchief was now tied about the neck of the fœtus, and three operators, by successive efforts, drew down and delivered the fœtus. The woman died in an hour. The fundus uteri extended to the umbilicus. Large clots were found in the abdomen, and also some fluid blood. A laceration existed on the anterior aspect at the junction of the vagina and uterus about three inches long, transverse in direction, with ragged edges and greatly ecchymosed. The antero-posterior diameter of the superior strait measured three and a half inches, the transverse five inches, the promontory was very projecting.

Case Simulating Rupture.—A multipara, æt 31 years, in her seventh labor; for some time the labor progressed slowly; suddenly, after a severer pain than she had experienced, she began to complain of pain in the epigastric region, which she compared to a "foot sticking in there," and she exclaimed that she "should burst." As she was ordinarily a quiet woman in her labors, some apprehension of rupture was felt. She felt weaker, but the pains continued. The membranes were ruptured, and in about an hour the fœtus was expelled alive. As the uterus contracted two distinct indentations or depressions were felt in the fundus. Four days after some fever developed, and the pulse ran over one hundred and twenty, but in about four days she was able to sit up.

Remarks.—Six cases of rupture are given as having been seen by myself, one furnished by Dr. E. W. Owen, and of one the autopsy only was witnessed. For the sake of convenience the result of the whole are tabulated. *Results.*—Of the eight cases, six proved fatal to the mother, and two recovered; to the child all were fatal. *Number of labors.*—All were multiparæ *Cause of rupture.*—Hydrocephalus of the fœtus in one case, contracted pelvis in two cases, and in

one case an abnormally thick muscular uterus, with a large child, was supposed to have been the cause. In one case there was reason to presume that mal-adroit attempts to deliver had produced a laceration. *Duration of labor.*—Two days or more in two cases. *Cessation of the pains.*—Occurred in four cases, *vomiting* noticed in four cases. *Presentation*—All were head. *Mode of delivery.*—By perforation in four cases, by forceps once, by turning once. Died undelivered one. *Lived after rupture.*—Recovered two. Death in eleven hours one, in ten hours one, in twenty-one hours one, in two hours one. *Seat of rupture.*—Anteriorly near neck in three cases; posteriorly one case, on right side in one case.

Inversion of the Uterus.—The only case in which this accident occurred was seen in connection with Dr. M. D. Van Pelt, by whom a report was made in the *N. Y. Medical Times*, for February, 1853. The case was one of interest in a medico-legal point of view, and also from the peculiar mode in which the inversion, or rather eversion occurred. The uterus was not indented from the fundus, but the inferior portion seemed to have turned out, giving a sort of trumpet shape to the lower part of the organ. Restitution was readily effected, and the woman recovered. Dr. V. P. has given the particulars of the case.

Monstrosities. *Case* 1.—*Anencephalous Fœtus.*—A multipara, aged 28, pregnant with her third conception, was prematurely seized with labor pains resulting from domestic calamity. At the first examination no presenting part could be discovered, the vagina being filled with the bag of waters. Some abnormity was suspected, and the membranes allowed to rupture spontaneously. The presentation of the face could be then made out but from the deficiency of frontal bone an anencephalous fœtus was inferred. At each pain, liq. amnii continued to gush, so that the bed was saturated, and a large puddle formed on the uncarpeted floor. Great exertion on the woman's part was necessary to deliver the shoulders, which were firm and brawny The fœtus just before expulsion gave a convulsive start, but was born dead.

Case 2.—Multipara with her fourth conception. During gestation she had had much domestic annoyance. On examination the face was found presenting, and the sharp edge of the frontal bone toward the right acetabulum, and beyond this a soft mass could be felt. The previous case led me to anticipate a similar fœtus. There was no profuse gush of waters, and no abnormal development of the body. The fœtus was a male and was born alive. It cried, passed urine, and fæces, and lived fifty hours.

Hydrocephalus.—Three cases have occurred, in all of which perforation was employed as the means of relief, and the cases will be found under that head.

The risks attending this complication are illustrated by two of the cases. In the first, which was a breech presentation, vesico-vaginal fistula resulted from the pressure which would not have occurred under more enlightened advice. With another case, rupture of the uterus took place with fatal issue. In the remaining case the diagnosis was so obscure, that three intelligent accoucheurs (one a Professor of Midwifery,) did not suspect the complication, until the perforator revealed the truth by a gush of serous fluid.

Vesicular Mole. *Case* 1.—A primipara, in about the seventh month of conception, had some hemorrhage, for which my attendance was requested under the supposition of placenta prævià. An expelled mass was shown, which on examination proved to be a conglomeration of vesicles, many of them being as large as a hazel-nut. Some similar bodies protruded from the os uteri which were removed. On inquiring into the history of the case the patient said, that for five months after supposed conception, she enlarged rapidly, less so after that. No motion had been felt. The areola was well marked. Ergot was advised to complete the expulsion of the "mole," but proved of little avail. On the next day another portion was spontaneously expelled, after which she left the asylum.

Case 2.—A multipara, in her second gestation. For three months the ordinary signs of pregnancy were present,

but about this time the nausea became more persistent and distressing, and severe neuralgia of the head occurred. Subsequently there was some slight hemorrhage, which lasted until visited a few days before the development of the case. After about eight hours of pretty severe pains, the os uteri became sufficiently dilated to admit two fingers, with which about a pint of "hydatids" were scooped out. Considerable hemorrhage took place during this process, and stimulants became necessary. Convalescence was slow, and on several occasions a few vesicles escaped with some hemorrhage. Neuralgic pains also, were severe, for which tonics were freely given. She recovered.

Forceps Cases. *Case* 1.—A primipara, having been for twenty-eight hours in labor, was delivered of a boy by means of forceps. The child was alive. In this case the membranes had been ruptured for thirteen hours, and the head on the perineum for about eight hours. The soft parts becoming hot and painful, with diminishing pains, delivery was deemed necessary.

Case 2.—A primipara, æt. 30. At the first examination the membranes were found to have been ruptured, and the os uteri of the size of a quarter dollar. Severe pains for nineteen hours proving ineffectual to deliver, forceps were used, and a male child born alive. For some time afterwards the patient complained of pain, and difficulty of moving the right leg.

In this case chloroform was used, and it was supposed to be the first case in which that anæsthetic was employed in midwifery in this city. The date was January, 1848.

Case 3.—A primipara, æt. 37. Membranes ruptured before examination, and the os uteri about one inch in diameter. In the course of four hours the os tincæ was dilated, and the head at the inferior strait in the right occipito-anterior position, but no progress beyond was made for eleven hours. The pubic arch was contracted. By the aid of forceps a female child was delivered almost lifeless, but was resuscitated. In delivering the placenta it was found to be

in a chamber, (as it were) of the uterus, produced by irregular contraction. Chloroform relieved this stricture, and delivery was readily completed.

Case 4.—A multipara, æt. 26, was delivered of her third conception, a girl, by forceps, after a labor of twenty hours.

Case 5.—The instrument used for the delivery of the head of the first twin, as referred to Case 17, of breech, and Case 9, of twins.

Case 6.—A primipara, æt. 24 years, delivered after a severe labor of forty-eight hours duration, of a living girl. Dilatation of the os proceeded but slowly, and after its completion the pains were not effective for delivery. The contractions commenced with apparent force, but, before producing expulsive effect, violent pain through the hips and down the thighs occurred, which seemed to cut short all bearing down effort. For this it was supposed that chloroform might be serviceable, but its use was overruled. Opium seemed to control it temporarily. Venesection was also used. As a final resort forceps were employed, and delivery easily effected. An adhesion of the placenta about two inches in diameter, presented the expulsion of the placenta, and required detachment manually. This patient was attacked with puerperal fever on the third day after delivery, and lingered until the seventeenth day when she died.

Case 7.—Referred to as Case 10, of twins. Protracted convulsions rendered delivery necessary, and as the head was in the pelvic cavity forceps were applied.

Case 8.—Referred to as Case 1, of rupture of uterus. Forceps applied but slipped from the yielding of the head—the fœtus being hydrocephalic.

Case 9.—Referred to as Case 3, of rupture of the uterus. The blades of the forceps sprung during traction, which was not severe.

Case 10.—Primipara, æt. 33. The membranes ruptured twelve hours after the commencement of labor, and slow progress was made for two hours, when the caput succedaneum was almost at the vulva. No progress was now made

for eight hours, and forceps were used. A living male child was born.

Case 11.—A multipara, æt. 23, in her third labor. Her attendant stated that the head had occupied the inferior strait for twelve hours without advancing. Four hours more were permitted to elapse before proceeding to delivery. This was readily effected by the short forceps; child lived.

Case 12.—A primipara, aged 20, was delivered by forceps of a male child (living), after a severe labor of thirty hours. For about thirteen hours there was no advance of the head, though the contractions were energetic.

Case 13.—A primipara, aged 27, was seized with eclampsia, on the day but one previous to visit, and at the time of delivery she had had fourteen convulsions. No fœtal pulsasation could be heard; but the use of forceps was deemed preferable to perforation. A still-born male child, weighing nine pounds and three-quarters, was delivered. The woman died of puerperal fever, which was prevalent at the time.

Case 14.—Case 3 of Placenta Prævià. A primipara, aged 29, was seized with flooding, during the seventh month of gestation, which continued for a fortnight before my visit. Natural efforts, though seconded by ergot, failed to deliver. The forceps were easily applied, and delivery quickly effected; but the hemorrhage had been too long continued, and the patient survived only an hour and a half.

Case 15.—A primipara, aged 24 years. After a slow progress of labor for seven hours, the head in the right-occipito-anterior position reach the perineum; here it remained stationary until forceps were used, twenty-nine hours after the commencement. In the meanwhile, she took some sour milk, which soon purged her freely, with borborygmus and pain. The use of instruments was advised, but rejected some hours before delivery. At the time of delivery the labia were œdematous, with a yellowish vaginal discharge, and pulse 130. The child, a female, was still-born. The patient had a protracted convalescence.

Case 16.—A primipara, aged 30. Had three convulsions

before delivery, which was effected by forceps, and subsequently one more. The child, a male, was still-born. Albuminuria existed.

Case 17.—A primipara, aged 33. At the time of visit she had been in labor about forty-eight hours, the membranes having ruptured about thirty hours. No progress had been made by the head for eight hours. The child, a girl, was born living, but lived only for a short time.

Case 18.—A primipara, aged about 30, strong and plethoric. About three hours after the commencement of labor, the water escaped. Her attendant had made attempts to dilate the os manually, and supposing that he had succeeded, was desirous that forceps should be used. At my first visit the os uteri was about one and a half inches in diameter, with a thick hard undilatable margin. Opium was advised, and this failing, chloroform was to to be given. In the afternoon she was again visited, her attendant stating that he had again "used manual dilatation, and with good effect;" that chloroform had been used, and the os was fully dilated. On examination the os uteri was about three inches in diameter, and rigid in the whole circumference. Venesection was advised. At the next visit, the os was fully dilated, and forceps were used, and a dead male child delivered, weighing ten and a quarter pounds.

Case 19.—Referred to as Case 11, embryotomy. Forceps were used prior to the perforator. A primipara, aged 30. Length of labor four days.

Case 20.—A primipara, aged 30. Position right-occipito-anterior. Labor tedious and with much pain posteriorly, even while the head was at the superior strait. A chill had occurred, and her attendant had deemed delivery advisable. Forceps were readily applied, and delivery effected. There was no pulsation in the cord around the neck, and the child, a boy, was still-born.

Case 21.—A primipara, aged 23 years, had been in labor for fifty hours. At the time of my visit the head was low in the pelvis, but uterine efforts did not advance it. After

watching for an hour, forceps were used and a male child was born living.

Case 22.—A multipara, aged over 35 years, with her fifth conception. On two occasions previously, instruments had been used. She had been in labor thirty-eight hours, and though the pains were strong, no progress was made to delivery. Chlorofo rm having been premised forceps were used, and, with severe exertion, a boy extracted still-born.

Case 23.—A primipara, æt. about 23. She was said to have been in labor for two days. No progress having been made for some hours, forceps were used. The delay was owing to the position, left occipito-posterior. A living male child was delivered.

Case 24.—Refer to Case 11, embryotomy. The forceps were readily applied, but traction did not cause the head to descend; and as the fœtus was dead, the perforator was preferred to the use of more violent exertion with the forceps. The patient was a primipara, æt. 27. The child a female.

Case 25.—A primipara, æt. 28 years, had been in labor four days. The child, a male, was born alive.

Case 26.—A multipara, æt. 43 years, with her eighth child. In the absence of her attendant, this patient was seen about midnight. Her labor commenced with rupture of the membranes; and about twelve hours after, her attendant gave her ergot, and left with the belief that the os uteri was fully dilated. On examination the os was about the size of a half dollar. The pains were ergotic, "crampy," continuous, and very distressing. In about four hours the os became dilated, except the anterior lip. About twelve hours after, as no progress was made, forceps were used, and after severe traction, a male child, weighing twelve pounds, was extracted alive.

Case 27.—A primipara, æt. 22 years, had been in labor about two days, and attempts made to deliver with forceps. On examination, deep and extensive lacerations of the labia were found, the result of the previous manipulations. No difficulty was experienced in locking the forceps, and deliver-

ing a still-born male child, of rather more than ordinary size and weight.

Case 28.—A primipara, æt. 25 years, strong, plethoric, and anasarcous, was taken with convulsions during the dilatation of the os uteri. For this she was bled. When seen, she had had seven more fits, and was lying in the coma of the last. On examination, the head was found in the cavity of the pelvis in the left occipito-anterior position. The urine had accumulated, and was removed by catheter; it was strongly albuminous to heat and nitric acid. The child was believed to be dead; nevertheless, forceps seemed advisable, and the event proved them to be the proper instruments. A living male child, weighing ten and a half pounds, was readily extracted. The placenta adhered, (Case 16.)

Case 29.—Referred to as Case 15 of twins. A primipara, æt. 33 years, being unable to expel the first twin, after forty-eight hours exertion, forceps were used, and a living male child delivered.

Remarks.—The most striking circumstance in connection with these cases is, the preponderance of primiparous patients. Of twenty-six cases, in which the number of births is noticed, five only were multiparæ,—twenty-one primiparæ. In the multiparæ, the reason for the use of the instruments was, in one, rupture of the uterus; in one, contracted pelvis, which had on a previous occasion necessitated their use; and in one, the imprudent use of ergot, with a very large child, had exhausted the uterine energies. In four cases, the forceps were used for convulsions, in only one of which the child was born alive; and one mother died of subsequent puerperal fever. The duration of labor varied from nineteen hours, the shortest period, to four days, the longest recorded. The time elapsing during the second stage of labor without progress, has been the criterion for the necessity of using instruments; and in reflecting on these cases, in two instances only has subsequent experience convinced me that nature would have equally well accomplished delivery. In some cases, the application has been too long postponed,

and unpleasant consequences ensued. Of the two cases just referred to, one was a head detained after a breech delivery, where proper manipulation would have secured extraction. The other was a simply delayed labor, where the short forceps were used. In all, except this case, the long forceps with a double curve have been used, and proved serviceable. It is often said that the hand that uses is of more consequence than the instrument to be used, a remark generally true, though not always so. On several occasions, my own forceps have succeeded where other instruments have failed; and in one case in particular, a pair of forceps yielded so much, in the course of extraction, as to permit the head to slip through, though the blades were correctly applied.

Results.—Of twenty-four children, fourteen have been born alive, nine are recorded as still-born. Of these nine, two heads were subsequently perforated, two were born in eclampsia, one died during unavoidable hemorrhage. Three mothers have died, two of fever and one of placenta prævia. *Sex.*—Recorded in twenty cases, of which fourteen were females.

The ages of mothers have ranged from 23 to 43 years, the majority being over 30.

Embryotomy. *Case* 1.—Was performed to deliver a large fœtal head. Though occurring in a public institution, no instruments were to be had for any operation, and in this case the perforator used was an ordinary pocket-knife.

Case 2.—Referred to as Case 3 of breech labors. In the same institution, no instruments being procurable, a trocar was used, and the opening made through the orbit.

Case 3.—The perforator used for an hydrocephalic child, the forceps having failed.

Case 4.—Also an hydrocephalic child. Forceps readily applied, but slipped. Referred to as Case 1 of rupture of uterus.

Case 5.—Referred to as Case 3 of rupture of uterus. The perforator used after the failure of forceps.

Case 6.—Case 4 of rupture of uterus.

Case 7.—A primipara. Duration of labor twenty-nine hours. No fœtal pulsation could be detected, and there was a fetid odor from vaginal examination. After delivery by the craniotomy forceps, there was some hemorrhage. Recovery was tedious. Male fœtus.

Case 8.—A multipara, four days in labor with her second conception. When seen, a fetid odor was perceptible on vaginal examination, the soft parts hot and dry. This woman died of peritonitis.

Case 9.—A primipara, æt. 26, had been in labor for five days before visit. Vaginal examination gave ample evidences of decomposition. In delivering the fœtus, the bones of the head came away separately, as also the clavicle and some ribs. The remnants of the fœtus without the brain and bones weighed eight and three-fourth pounds. The patient lived only two days.

Case 10.—A primipara, æt. 18, was delivered, after a labor of two days. The cord prolapsed by the head, and was pulseless for twenty-four hours. Delivery was readily effected. The woman died.

Case 11.—A primipara, æt. 32 years, had been in labor when seen for two days, during which time ergot had been given, and attempts made to deliver with the forceps. When visited, the caput succedaneum was found distending the vulva, but delivery was impeded by the narrowness of the bis-ischiatic diameter, which was not more than three inches. At the request of the attendants, an attempt was made to apply forceps, but it proved, as was anticipated, unavailing. The perforator was then used, and even after the brain was evacuated, much difficulty was experienced in delivering the head. No less trouble was experienced in delivering the body. The cuticle peeled readily, showing the death of the fœtus before perforation. The uterus contracted irregularly, and the hand was passed to effect the detachment of the placenta.

Case 12.—This case had been under the charge of two different practitioners; the first of whom said he had found

an arm presenting, which he had returned, and then resigned the case to the second, who found the cord prolapsed and the face presenting in the left mento-iliac position. He had tried forceps ineffectually. On visiting the case, about a foot of the funis was found prolapsed, the face was at the superior strait, looking to the left side, the chin being posterior. The cord being pulseless for a long time, the child was presumed to be dead, and cephalotomy the proper means of delivery. The perforator was pushed through the scalp-tumor which had formed on the right frontal bone, and after breaking up the brain, delivery was effected by craniotomy forceps and the crotchet. As the head was being delivered, the occiput rotated upon the crotchet as a pivot from right to left, into the hollow of the sacrum, and was thus delivered, the chin being under the pubes; restitution occurred toward the left thigh. The shoulders were delivered manually, and the placenta passed without assistance; child, a male.

Case 13.—A primipara, aged 30, had been in labor four days before my visit. The pulse was 122, with no abdominal soreness; the bladder was distended. Per vaginam the head was pressing upon the soft parts, the sutures sharp and bones overlapping. There was no uterine contraction, and had been none for five hours. The catheter was passed. After an unsatisfactory attempt with the forceps, the scissors were used. By the crotchet the cranium was pulled away piecemeal, and, with much difficulty, the remnant of the head and body were delivered, a great explosion of fetid gas following the expulsion. The placenta was found enclosed in a chamber; and was delivered manually.

Case 14.—A primipara, aged 27, had been in labor for three days prior to my seeing her, the membranes having ruptured within seven hours after the commencement. Per vaginam, the scalp was found turned, and the edges of the bones sharp, the presentation being right occipito-anterior. The inferior strait was contracted, the pubic arch being like that of a male pelvis. The abdomen presented two tumors, divided by a sulcus, which appearance was quite deceptive,

as the catheter was stated to have been recently passed. This proved to be an error, for on the delivery of the head, urine gushed out very freely. Forceps were first tried, and though easily applied, produced no effect, and the perforator was then resorted to. Severe traction was requisite, but delivery was finally effected, and the woman recovered.

Remarks.—Of the fourteen cases, one only occurred in my own practice, viz.: the breech case, in which hydrocephalus caused the delay in expelling the head. In no case has a living child been sacrificed, a circumstance attributable to the natural repugnance every conscientious practitioner feels to destroying life, even in emergencies. As, with the one exception, all the cases were seen in consultation, much delay had occurred in seeking advice, and there has been no ground for hesitating as to the mode of delivery. Evidences of fœtal death have been, in all cases, manifest. So much has this been the case, that it has materially influenced the result to the mother; for out of the fourteen cases, no less than five women have died. Of these, one death was from rupture of the uterus, and four from fever. Of ten cases recorded, only one occurred in a multipara. The reason for operating is noticed in eight cases, three were for ruptured uterus; three children were hydrocephalic; twice the funis was prolapsed and pulseless.

Unclassified Cases. *Case* 1.—*Presentation Occipito Pubic.*—A German woman, æt. 36 years, pregnant with her sixth child, was delivered, after a very tedious labor of twenty hours. Her previous labors had been easy and rapid. In this, though the contractions were sufficiently energetic, but little progress was made, owing to the position of the child. At the superior strait, the presentation was easily made out by the occipital and sagittal sutures. The latter occupied the antero-posterior diameter of the superior strait, and the head was with difficulty expelled in this position.

Case 2.—*Labor with Disease of Heart.—Death.*—A multipara, in her seventh pregnancy, began to complain about two

months before term. Irritability of stomach, deficient secretion of bile, scanty and high-colored urine, the pulse full and bounding, were prominent manifestations. Venesection relieved the symptoms temporarily. A week later she was troubled with cough and slight hemoptysis, for which no pulmonary cause could be found. On consultation, the venesection was repeated, and antimonials used, with good effect. The cough subsided, and the urine became copious, having no albumen in it. A careful examination of the heart now discovered hypertrophy, with a systolic murmur, having its intensity over the aortic valves. The improvement lasted about a fortnight, and the patient suffered more than before. The respiration was difficult, and she could not lie down; the sputa were streaked with blood. A different consultant was called in, who advised enemata of turpentine and a solid diet, in order to relieve flatulence. These measures did not relieve. The pulse was tense, strong, and bounding, causing the radial and ulnar arteries to start, with the violence of the pulsations; the cough was frequent, and expectoration bloody. A small bleeding was ventured, but the force of the pulse was broken at once, and the arm tied up. On renewed consultation, it was determined to anticipate labor; and, to induce premature contraction, compressed sponge was inserted within the cervix, and the vagina plugged. These measures seemed to coincide with labor, though the patient was not conscious of it; for in about four hours the os uteri had dilated to two inches in diameter, and the membranes had ruptured spontaneously. No relief was obtained by the evacuation of the liquor amnii. While I was in an adjoining apartment, she arose to the close stool, and when called, I found the head had emerged while in that position. The patient was placed in bed, and soon the body of a female child was expelled living. The placenta remained partly within and partly without the os uteri, strong pressure being kept up over the fundus uteri; but there was no flooding. After some effort on the woman's part, and the ineffectual use of ergot, the placenta was delivered manually

and with less than the usual loss of blood, and the uterus contracted well. The patient could not be kept recumbent, but tossed around violently, gasping for breath, but no flooding occurred. Stimulants were actively given for more than an hour, when she started up wildly, gasped, and died.

Case 3. — *Dyspnœa after labor threatening dissolution.*— A multipara, aged 30 years, with an obscure cardiac affection (hypertrophy) was troubled with dyspnœa during the latter months of gestation, which precluded exertion even to a moderate extent. The labor was short, the pains being lengthened and efficient, but all outcry was stifled by self-control. No hemorrhage succeeded delivery, but almost immediately after the difficulty of breathing became very alarming, the face became lurid, the nails purple, the pulse weak, irregular and intermittent, and she was compelled to sit up in order to breathe. Stimulants were freely used by mouth, and to the nose, and a sinapism laid between the shoulders. Relief gradually ensued, and she recovered without return of the distress.

Case 4.—Was requested to see, in consultation with two practitioners, a primipara, aet. 30, who had been in labor for two days, the membranes having ruptured early, and the subsequent progress being slow. Her attendant was sitting by the bedside, and stated, that about three hours before, the pains had been active and delivery seemed imminent, but suddenly the pains had ceased. The head, he said, was impacted, and the catheter would not pass. The pulse was 100, the skin cool but not clammy. On examining the abdomen, the bladder was much distended. On attempting to pass into the vagina, the head was found delivered, the scalp emphysematous, and the bones loose. Her attendant was much surprised. He was requested to complete the delivery, and with some trouble, owing to the putrid state of the fœtus, did so. Immediately on the expulsion, an explosion of fetid gas occurred, and the bladder was evacuated spontaneously. The woman subsequently died.

Granting her accoucheur's account to be strictly correct as

to the cessation of pain, and his *subsequent* examination finding the head still under the pelvis, what effected the delivery? Was it the development of gas by decomposition that silently extended the head?

Case 5.—*Elongated anterior lip of cervix.*—A multipara with her second child. On making the usual vaginal examination, the os was found about two-thirds dilated, and a teatlike projection attached to the anterior lip. After some time she rose from her bed to go to stool, and was found upon her hands and knees, the child being on the floor, and having lost considerable blood. The cord was divided, and as the woman continued to lose blood, she was replaced in bed before delivering the placenta. This having been done, firm pressure was made over the uterus, which caused the escape of blood and coagula. Per vaginan were found clots, and another substance which was supposed at first to be a clot firmer than the rest. On tracing it up, however, it was found to be the anterior lip of the uterus, elongated sufficiently to protrude from the vulva, about one inch wide at its apex, and gradually widening to its base. This was not interfered with. A similar case had been related to me a few days previous by Dr. Beadle.

Case 6.—*Good effects of chloroform.*—A primipara, the wife of a medical gentleman, had been in labor when seen, for several hours, the os being dilated, and the pains slow and inefficient; simple delay was advised. The next day, as no progress had been made, ergot was suggested, but no good effects were obtained from it. Her husband had also used chloroform. In the night it was thought advisable to use forceps, as the labor had continued about forty-three hours, the head occupying, for a long time, the inferior strait without advancing for several hours. As a preparatory step chloroform was used, and as soon as the full effect was obtained, the operation was commenced. On attempting the passage of the first blade the head was found descending, and of course the natural efforts were allowed to complete the delivery. The child, a boy, was born asphyxiated, but re-

covered. In this case two causes had acted to impede labor, first the pains were inefficient, while the second and principal cause was great sensitiveness of the external parts. Chloroform acted kindly in relieving this hyperæsthesia, and then the uterine efforts sufficed to expel the fœtus through a vulva, relaxed also probably by the anæsthetic.

NEW YORK, 64 East Twelfth-st., Sep. 25.

ART. II.—*Report of a Case of Hydrophobia, with Post-mortem Appearances.* By THOMAS TURNER, M.D., Physician to King's County Hospital, N. Y.

N. C., a tall muscular man, aged 45, a laborer, was admitted into the Hospital, Sunday, August 12th. The account given was, that his hands had been bitten while assisting to kill a dog, on the 12th of May last, and that soon after, and before the wounds had healed, he had buried a dog, killed in consequence of his having been bitten and worried by a dog that was undoubtedly rabid. The wounds had healed and he had been quite well until the Wednesday previous to admission. On the afternoon of that day he "felt chilly and trembled all over and vomited." The next day he went to his work, but did not feel well. At noon of the same day he went home and asked his wife for some coffee. He said that when he tried to swallow it, "it went down the wrong throat and strangled him so that it made him spring up to the ceiling." He had not slept any for two nights, and continued getting worse. He was attended by a homœopathic physician, who pronounced it hydrophobia. And he was also examined by Drs. Palmedo and Ayres, his symptoms being considered by them as those of hydrophobia.

At time of admission, his countenance was pale, and he appeared slightly debilitated, but his general appearance was not that of a very sick man. He had been intemperate in his habits, and he talked quite naturally and was of the opinion that his trouble was caused by drinking too much. His pulse was 100. Tongue covered with a thick yellow

white fur. Bowels costive and the conjunctivæ slightly yellow. He complained the most of a constant pain at the epigastrium. Had pain in his back between the scapulær and some soreness in the course of the trachea and œsophagus. He said that he "would be quite well only for the nervousness and if he could swallow." He thought a little brandy would make him feel better at his stomach. Some brandy and water was brought. He laughed good naturedly and said he did not like to take it before the other patients. He was taken into another room and the cup handed to him. He sighed deeply a number of times, throwing his head far back each time, and appeared much distressed but made a sudden effort and gulped down the greater part of it.

On seeing him soon after with Dr. Ingraham, he was asked if he would like a drink of milk; he sighed deeply as he had done before when attempting to swallow, and it was noticed that whenever mention was made of his drinking or eating anything, he acted in the same manner.

He was ordered a dose of calomel, and to be cupped over the epigastrium. When taking the powder, he put out his tongue far to receive it, and covered his eyes with his hands, the effort to swallow it distressed him, though not so much as when taking fluids. The calomel operated on his bowels in about six hours after taking it, and he ate supper of bread broken up and soaked in milk.

At bed-time was ordered Morph. Sulph. gr. one-fourth, which he took on his tongue in the same way as the calomel. Was restless through the night and complained of being thirsty, but was afraid to drink.

Monday morning he seemed much worse. Extremities cold, and the whole body covered with a profuse cold perspiration. Pulse 90 to 100, but weak and irregular. Tongue clean and has no pain at epigastrium. His left arm was found to be partially paralyzed. He said he had lost the power of it some time in the night. He was restless and talked much and that mostly nonsense. He was constantly hawking up a tough mucus which appeared to come from

the fauces. The flies lighting on his face caused him to start suddenly, and the nurse used a fan to brush them away, but he shuddered and gasped in great distress, and said that fanning took away his breath. He complained also of the light, and of the air when the door or window was opened. He drank some wine and water with more ease than he had the previous day. About 11 A.M. he had convulsions. After these he sank very rapidly and died at 12½ P.M.

Post-Mortem Examination, Twenty-Five Hours after Death.—External appearance—The body was mottled with purplish spots, especially on the extremities. On the back the lividity was general. The nostrils surrounded with frothy matter. Body not emaciated. The cicatrices of the bites on the fingers a little bluer than the surrounding skin. No complaint had been made by the patient of any uneasy sensation, nor had any abnormal appearance been observed in these scars at the time of recrudescence.

The intestines were pink from congestive vessels. The stomach contained some partially digested food, and a quantity of brownish colored fluid. An oval patch, about five inches long by four inches wide, at the greater curvature of the stomach, was denuded of mucous membrane. The blood-vessels enlarged, and over them and along their course the mucous coat was wanting. Liver large, some portions of it were yellower than the rest, but otherwise it was healthy. The heart fully. A fibrinous clot was found in the left ventricle. The mitral valves thickened, and osseous deposit in the aorta near the semilunar valves, but not involving them.

There were old pleuritic adhesions, and the lungs were congested.

The œsophagus, trachea, larynx, tongue, and as much of the pharynx and fauces as could be obtained, were taken out together. The papillæ at the base of the tongue were very much larger than natural. The fauces and epiglottis congested, numerous enlarged vessels were observed, and the follicles of their parts were large and prominent. The

larynx also red and congested. Some appearance of œdema about the glottis, and the ventricle filled with a frothy mucus. Lining the œsophagus and pharynx was false membrane extending from the fauces almost to the stomach. This false membrane was thin but well defined, and was rather thicker on the anterior than the posterior surface of the tube.

On opening the head, the vessels of the dura mater were seen distended with blood. The arachnoid thickened and opaline, and subarachnoid effusion was found, and about ʒij of fluid effused at the base of the brain. The red points seen on slicing the brain were larger and more numerous than usual, and the cerebral substance was softened in the centre of the brain, but this may have taken place after death, as the weather was warm.

On turning the body on its face, the cerebro-spinal fluid escaped freely from the foramen magnum, and it was noticed that this fluid was thick and opaque like pus.

The spinal cord was examined by sawing through the laminæ of the vertebræ on each side of the spinous processes, and on raising the piece thus detached, the investing membranes of the medulla were seen coated with lymph throughout nearly their whole extent. The lymph was deposited more abundantly on the posterior than on the anterior surface of the cord.

ART. III.—*Case of Tubercular Encephalitis, with Pulsating Tumor on the Occiput.* By JNO. S. ANDREWS, M.D., of East New York, King's Co., L. I.

IT having fallen to my lot to witness the termination and autopsy of the following remarkable case, I send the same for publication in the Journal. And in communicating it, two objects have induced me to the task. First, that through the medium of your columns, the result may come under the direct notice of several eminent practitioners in different sections of the States, who have had this patient under their

observation and treatment; secondly, believing, from its peculiar and anomalous character, that it will be interesting to all of your readers, and especially those who devote much time to the investigation of disease and its phenomena.

Lamertine Bovay was born in the year 1848, of apparently healthy parents. At birth, his head was noticed to be of the most symmetrical kind; it did not present that elongated appearance common in infancy. His mind, early and during life, was very active, and he was noted for his precocity of talent and rare endowments; possessing, also, an exuberance of all the nobler faculties and gentler affections. Up to the age of ten months, he was perfectly well and not subject to the usual ills of infancy. At this period, an eruption, following vaccination, made its appearance upon his face, and spread over its whole surface, and on to the scalp. For this he was under treatment, and as it subsided, *dysentery* ensued, followed by an affection of the lungs. The last occurred simultaneous with the disappearance of the eruption. This terminated with soreness behind the ears, and glandular swellings of the neck, which, alternating, lasted three years. During the fourth summer, he had a severe attack of *dysentery*, (prevailing epidemic at the time,) which prostrated him so much, that several months elapsed ere he regained his usual strength. In February following, an intermittent neuralgia, as it was then termed, attacked him, characterized by severe pain in the occipital region of the head, stiffness in the neck, and fever which continued for three weeks. Similar attacks followed, of an intermittent or remittent nature, up to February, 1854, when he was seized with some disorder of the lungs. This subsiding, the neuralgic symptoms again appeared, and were marked by a greater severity than before, a disposition to fly from one part of the system to another, and finally locating itself in the back and left side of the head. The finale of this was, a pulsating tumor appearing in the back of the head, and a gradual loss of sight commencing in the left eye. Under a course of treatment which lasted from May till September, his health

gradually improved, the tumor disappeared, but there was no noticeable change in his eyesight. He remained in tolerable health,—subject, however, to headache, upon any undue excitement,—until May 7th, 1855, when another neuralgic attack appeared, with nearly the same symptoms as before. About the fourteenth day of this seizure, there was some disposition to unconsciousness, which alarmed the parents, and I was summoned to attend him. From his mother, a very intelligent lady, I gathered the foregoing history. I found him extremely prostrated, suffering at times excruciating pains in the back and left side of his head, and a tendency to stupor in the intervals. The veins of the head were full and enlarged, the eye-lids were closed, appearing like one suffering from intolerance of light, and the eyes were completely amaurotic. A strong light, however, caused the pupils to contract, and the iris moved sluggishly; but he could not discern anything. His cutaneous system was very sensitive, so much so, that he could not bear to be touched. There was an indentation in the occipital bone, directly in the spot where the pulsating tumor appeared. Up to this attack, there had never been a convulsion or spasm; no tendinous contraction or paralysis; no mental aberration or delirium; no derangement of the abdominal organs,—symptoms which usually accompany organic disease of the brain. My diagnosis was somewhat ambiguous, regarding the cause of these rare phenomena; two theories, however, were suggested on reflection,—the first, from his having an aneurism external to the skull, led me to conjecture that there was the same change internal, either continuous or separate; the second, from the history of the patient, that there was some scrofulous disease of the encephalon or its membranes, complicated with an aneurism. With these views, Drs. Ingraham and Turner, of King's Co. Hospital, whom I called in consultation, concurred. On the fourth day of my attendance, he was seized with tetanic convulsions, which lasted several hours. Shortly after this, the aneurism appeared again, and he died five days after-

wards, with all the symptoms peculiar to that mode of death by gradual coma.

I would also remark that the paroxysms of pain, and any excitement, were always characterized by a sudden determination of blood to the head.

Autopsy eighteen hours after death.—Present, Drs. Ingraham, Turner, and myself. Body much emaciated and anæmic. On detaching the scalp, a number of large veins, distended with blood, were seen about the middle of the *os occipitis*. Just below the occipital protuberance was observed the depression spoken of, about one-third of an inch in diameter and one-fourth of an inch in depth. This was the location of the aneurism. The position of this depression corresponded with the part within the skull known as the *Torcular Herophili*, where the longitudinal sinus divides into the lateral ones. Covering this hollow in the occipital bone, was a membrane which appeared to be formed by the thickened walls of a distended vein, and on cutting through it, venous blood flowed out freely. In sawing around the cranium, the line of separation was intended to have been made below the depression but the instrument passed through the centre of it. A complete foramen about the size of a large crow quill perforated the bone, and, there was no doubt a free communication between the venous sinuses of the brain and the enlarged vein externally. Removing the top of the skull, the vessels of the *dura mater* were much congested, but no disease of the membrane was discovered. This being cut through, a large quantity of serous fluid was effused beneath it. The vessels of the *pia mater* were highly congested—the *arachnoid* thickened and opaque over the base of the brain, and there was a quantity of subarachnoid effusion in the same region. Around the *chiasm* of the optic nerves, over the *tuber cinereum* and anterior surface of the medulla oblongata, lymph was deposited. The divided surfaces of the optic nerves were of a reddish color, presenting quite a contrast to the white appearance in a normal state. Slicing off the upper portion of the brain to the level of the *corpus callosum* and raising up the *commissure*, the ventricles

were found distended to thrice their natural size with effused serum. On the left side, embedded in the *thalamus opticus* at its outer border, and contiguous to to the *corpus striatum*, was found a tubercle the size of a large pea. Cutting lower, another larger one was discovered, external and anterior to the first, in the medullary substance of the brain, and examining further, a mass of crude tubercles as large as a plum-stone was found in front of the last in the white substance.

The cerebral substance around these tubercles was softened, showing plainly, on comparing it with that of the left side of the brain, that the softening was due to diseased action, and not to any change after death. The posterior portion of the *corpus callosum* and the *fornix* were also very much softened resembling albumen slightly curdled by heat. The *choroid plexus* appeared as large again as usual. In the right lobe of the cerebellum there was a large tubercle. It was round and about one half of an inch in diameter, and softened in the centre.

No other organs were examined, as there were no indications of disease, previous to death, in other parts remote from the head, and the lesions found after death accounted for all the symptoms.

The post-mortem examination was very satisfactory. The lesions were *a tubercular inflammation* of the substance of the brain—the *amaurosis* being an effect of this cause, or of an effusion of lymph, resulting from this inflammation, taking place at and around the origin of the optic nerves.

The probable solution of the pulsating tumor is this: a small vein penetrated the skull, communicating with the torcular herophili and the scalp, and the protracted determination of blood to the brain produced an enlargement or distention of the torcular herophili, and this vein communicating with it, participated in, and received a proportional increase in its calibre. Like the continual drop wearing a stone, so the oft-repeated *vis a tergo* expansion wore the bone; the pulsation was dependent upon the brain; hence the pulsating tumor seen during life, and the foramen found in the skull after death.

ART. IV.—*Report of a Case of Necræmia, with remarks.* By C. C. WILLARD, M.D., of Greene, N.Y.

ON the 18th of Dec., 1854, in consultation with a neighboring practitioner, I saw a patient, a stout, hearty man in the prime of life, in the following condition:—

Pulse varying from 130 to indistinctness, respiration 80 in the minute, slight cough. Expectoration profuse, sputa highly charged with apparently effused blood, a dull heavy pain in the region of the heart, perspiration very profuse, skin clammy, mind somewhat wandering, restless, uneasy, constantly wishing to change his position, but unable to do so without assistance; the right foot presented a very singular appearance; the skin of the first toe seemed to be dead and separated from the fleshy parts, though it still preserved its continuity, with the exception of one or two small artificial openings, from which there occurred a small sanious discharge. The whole foot was of a dark, reddish, brown color, and seemed, for the most part, insensible; a bright red irregular line was seen on the inside of the leg and thigh, very painful, and sensitive to the touch.

The history of the case, from the physician in attendance, was as follows:—On the 14th, the patient called at his office to consult him in regard to his toe, which he alleged to have been frozen some three years previous, and it had troubled him more or less since that time. The toe then appeared white, an erysipelatous blush extending more or less into the foot. A puncture was followed by a very slight sanious discharge, the whole foot was extremely painful and tender. He was advised to apply a poultice.

On the 15th, he was called in haste, and on arriving at the bedside found that on the application of the poultice, the pain had left the foot and appeared in the left shoulder and side. On removing the poultice, the pain had returned to the foot, leaving the shoulder but not the side. Ordered a continuance of the poultice and an anodyne.

16th. Pain in the side increased, pulse rapid, respiration hurried, cough slight, but not painful; no expectoration,

prostration great, unable to turn alone in the bed, foot painful as before, erysipelatous blush extending upon the limb. Ordered a blister on the side; emetic and cathartic diluents and nauseants to continue.

17th. No relief to symptoms, emetic and cathartic operated freely; pulse rather faster and respiration more hurried than yesterday—treatment continued. The erysipelatous appearance extending up the limb, caustic was applied to meet and check it, which apparently did so. Such was the history of the case on the eve of the 18th. He was then to all appearance in articulo mortis. From certain peculiar appearances presented by the case, we were led to make some inquiries into its earlier history, and, from his wife, learned that about ten days previous he had, from some source, obtained a prescription to cure chilblains, which was, to bathe the part affected in boiling spirits of turpentine, and he had done so, making the application three or four times a day for two or three days, but the chilblains grew worse instead of better, and he then applied to the physician with whom I saw the case.

After midnight of the 18th, he failed rapidly, notwithstanding the free use of stimulants, and died early on the morning of the 19th.

It has occurred more than once, perhaps, to every practitioner that he has been obliged to form an opinion as to the character and cause of certain cases, from their similarity both in appearance and result to others progressing from a known cause through the same course to the same result. The case just read will, I think, come within the bounds of that class. The symptoms all point in one direction, viz.: to a complete prostration of the vital powers, and this prostration so great, as to be noted particularly within the first twenty-four hours. For the cause of this we must obviously look for a check to some one or another of the parts more intimately connected with the prolongation of life.

Carpenter, in his *Physiology*, p. 451, says:—

"The final symptoms which are common to all these

diseases—plague, glanders, pustula maligna, and others dependent upon the induction of some form of poison into the system, have been well described by Dr. Williams, in his principles of medicine, under the title of Necrœmia, or depravation of the blood, —'Almost simultaneously the heart loses its power, the pulse becomes very weak, frequent and unsteady, the vessels lose their tone, especially the capillaries of the more vascular organs and congestions occur to a greater or less extent, the brain becoming inactive, stupor ensues, the medulla is torpid, and the powers of respiration and excretion are imperfect; voluntary motion is almost suspended, secretions fail, molecular nutrition ceases, and structures die and begin to run into decomposition as soon, if not even before the pulse and breath cease.'"

This concatenation of symptoms is said, by this authority, to follow upon the known or supposed absorption of poisonous matter into the circulation, producing, as the name given would indicate, death of the blood.

In many cases of poisonous absorption the effect only is, and ever must be tangible, the cause speculative; in others again the cause, as well as the effect may be satisfactorily traced. At the present stage of pathological research, much in relation to this subject must remain speculative, and the ground, that like causes produce like effects, must for the present, be occupied as terra firma.

That the human system, in certain conditions, is susceptible to the action of animal poisons is admitted by all, and is amply proven in the effect of dissecting wounds, the application of the matter from a glandered horse to an abrasion of the skin, etc.

Now, how can these effects be accounted for, or even the effect of the vaccine virus, otherwise than by calling in question the powers of the absorbent system.

Physiologists tell us that the lacteals and lymphatics are absorbent glands—their proper function being nutritive absorption—that the lacteals have the power of electing and only take up proper nutritious substances, while the lym-

phatics are prone to absorb whatever comes in their way in the proper form, both discharging their contents into the blood-vessels. With these facts before us, it is not difficult to understand how this disease, necrœmia, or depravation of the blood is produced by the poison being deposited within the reach of the lymphatic absorbents, and carried by them directly into the blood, so that its first and immediate effect is upon the blood itself.

The case recited appears to me to bear a close resemblance to the description given by Dr. Williams of the symptoms attendant upon necrœmia. So close indeed is the resemblance that it seems almost impossible to conclude that it can be any other disease; but, we have no evidence of poison from a foreign source, as in the case remarked upon by the authorities, by them the poison being noticed as having its origin out of the system; how far this may be necessary remains to be seen.

Prof. Wood, in his *Practice of Medicine*, p. 128, says:— "Porrigonous ulcers of the head and face, and the sores so common behind the ears of children, often give rise to inflammation of the lymphatic glands of the neck and the intervening absorbents. The deep seated absorbents may become inflamed in consequence of a contusion, or fracture, or deep penetrating wound, or from their communicating with collections of acrid matter. In all cases the inflammation seems to be propagated by what is termed continuous sympathy, or by the action of acrid matter upon their inner surfaces." The same author also says: "the constitutional symptoms are not usually severe, and that death seldom occurs unless in constitutions enfeebled by intemperance, or in cases dependent upon the absorption of some poisonous agent." Making an evident distinction between poisonous and acrid agents.

In the case under consideration, the patient was a robust, temperate man in the prime of life, yet he died with all the symptoms of necrœmia or death of the blood; but no evidence appears of any inoculation of poison from a foreign

source; and the seat of the apparent origin of the disease, together with the season of the year, seems to forbid even a reasonable supposition that such might, by any chance, have been the case. Therefore, we are led to look for a reasonable source of the poison within the system.

Turpentine boils at about 30° Fahr. What would be the effect of this degree of heat upon living animal tissues? Boiling water applied to the skin causes the death of that tissue. In this case we have the repeated application of a much greater amount of heat, sufficient probably to destroy the vitality of the parts almost immediately. Here, then, we should have the dead and living parts in intimate connection. The part so destroyed by the action of the heat is probably as devoid of vitality as though it were actually separated from the system, and being so considered, that part, like other dead bodies, must either contain, or have the power of generating, poisonous matter. Then, the poison being generated almost, if not quite, in contact with the living absorbents, is by them thrown into the blood, and the system, being in the proper condition, is acted on by the poison, and all the characteristics and results of death of the blood from poisonous absorption will necessarily be prevented.

As a sequence, upon this view of the subject, the question might occur whether the constitutional symptoms usually observed to follow the occurrence of mortification, are not the result of poisonous absorption rather than the severity of the inflammation.

It will be noticed that the symptoms of necrœmia, and those that we are taught to observe as indicating it, are very nearly identical. Although a post-mortem examination after death, preceded by these symptoms, does not always reveal the only direct and positive evidence of gangrene, viz.: putrefaction. Neither is the introduction of animal poison into the system always followed by the effects. Inflammation, however violent, never produces these symptoms; they never occur until gangrene supervenes. Hence the infer-

ence may readily be drawn, that these symptoms, occurring under different circumstances, so nearly similar, and apparently following the action of a certain cause, may be ascribed to one and the same cause: namely, the action of the poison generated by a dead body, whether or not in connection with living parts upon the blood, whenever that poison shall be placed within the reach of the absorbents, and by them deposited in the blood-vessels.

ART. V—*An Inquiry into the Nature of the anomalous Affection known in the United States by the appellation of "The Nursing Sore Mouth," or "Puerperal Anæmia."* * By M. L. KNAPP, M.D., late Professor of Materia Medica, &c.

II.—*Medical Topography of the State of Illinois, the field of the writer's observations.*

THE topography of a country throws much light on the character of its diseases; we, therefore, bring to our aid, in this inquiry, the knowledge acquired from observation of the medical topography of Illinois, where we practiced medicine nearly twenty years, and encountered numerous cases of the anomalous affection under consideration; found it so common or prevalent during certain years, that it may be said to have been epidemic, or sub-epidemic, at least.

It is universally conceded, that the face of a country has much influence over its meteoric manifestations; and it is, perhaps, as generally agreed, that the meteoric phenomena, viz.: temperature, vicissitudes, dryness, humidity, play of electrical forces, etc., are not only direct causes of disease, but that they exert the utmost controlling influence also over the vegetable kingdom, governing production, or the staple crops and fruits, during each and every year, thus not unfrequently proving the indirect causes of disease, from the abridgment of food; as famine, partial famine, and even poor diet, are known to be remote causes of pestilence.

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* The researches made by the writer, in preparing this essay, during the winter of 1853-54, led to the investigations into the cause of cholera, which were published in the January number of this Journal.

The endemic influences manifested more especially in low, paludal, or marshy districts of country, situated within the temperate latitudes, as is the case with Illinois, are such as to subject the inhabitants to frequent attacks of the common or ordinary forms of intermittent, remittent, and continued bilious fever. So generally is this the case, that few persons emigrating to a *new* country, of this topographical character, even from lower latitudes, escape attack; those from northern regions and elevated mountainous districts, of old-settled countries, being most pre-disposed. It requires a certain high range of the thermometer, or elevated temperature, to develop the endemic influences, as 65° or 70° F. at least, and for the full effect, that this shall be prolonged for weeks or months, as in summer; and in proportion to the intensity and prolongation of summer heat, as a general rule, will be the amount and malignancy of the summer and autumnal epidemics. By continuing to reside for a series of years in a country of this character, the complexion of persons becomes darker, or more swarthy, and many are rendered permanently sallow, icterode, jaundiced, or cachectic, in their appearance, denoting dilapidation or impairment of the general health. Such persons will be found to have acquired visceral engorgements, tumefactions, and indurations, which permanently derange digestion and assimilation, and tend to dropsical effusions and organic affections. Children born and reared in localities where these epidemic influences are of marked intensity, become old, as it were, while young, presenting a lean, wrinkled, palid appearance, with tumid abdomen and stunted stature, and ordinarily betraying evidence of tardiness of perception and a low grade of intelligence.

In the absence of any positive knowledge of the *nature* of these endemic influences, so deleterious to human health, the medical profession, generally, have tacitly accepted, or acquiesced in the hypothesis of the presence of a poisonous air or miasm, called *malaria* or *miasma*. No analysis, however, of the air in the localities most deleterious to human health,

have ever detected any substantive entity or poisonous principle in the air, or the slightest departure from a healthy standard, save, perhaps, a smaller amount of oxygen in very hot weather; and the whole foundation of the dogma rests on inference alone. Other topographical regions, as we shall see, are uniformly subject to marked and peculiar endemic influences, differing in their effects from the above, and hence the notion has arisen of sundry kinds of malaria, and the epithet of *marsh* malaria has been applied to the one under consideration. The hypothesis of different kinds of malaria, however, has never come to be as generally acquiesced in, but rather the hypothesis assumed is, that obscure and diverse manifestations of disease, or masquerades of maladies, are ascribable to marsh malaria *modified* by place and circumstances. For the last century or more, this sweeping hypothesis has held dominion over the records of medical philosophy, growing with its growth, and strengthening with its strength; and upon it, as a foundation, are now erected the two superstructural hypotheses of the animalcular and cryptogamous theories of the *essential nature* of malaria or miasmata! It is generally regarded as the product of vegetable decomposition, whether it be held to be of animal or vegetable nature; and yet its endemic effects have been witnessed in arid deserts, where no vegetation ever existed, much less animal remains, to produce it. By the best authorities, the affirmative of the question, as to the endemic presence or substantive existence of malaria, is regarded as wholly unproven, altogether assumed.

Again, the endemic influences most manifest in high, hilly, and mountainous regions within the temperate latitudes, are such as tend to develop the local inflammations, or the diseases classed as the phlegmasiæ; and especially is it the case that thousands in those topographical regions inherit or acquire the tuberculous organization or strumous diathesis, and die prematurely of scrofulous affections, particularly of pulmonary consumption. The characteristic conformation of system into which the topographical or endemic

influences present seem to mould this very large class of persons, is a small, slender chest, a long neck, pinched nostrils, ruby lips, light hair and eyes, and a fair, thin skin, accompanied with quickness of perception and acuteness of intellect. These influences are said to be rendered more operative by consanguine marriages, and the taint is generally believed to be transmissible from parents to offspring.

A third very remarkable illustration of endemic influence is witnessed in the subjects of cretinism, who are reared and dwell in the mountain gorges of the lesser Alps, and other deep gorges and valleys of moderately elevated countries in middle and southern Europe, and in middle Asia, and probably in other deep and narrow defiles and mountain gorges of the temperate latitudes in other countries. Goitre, or the Derbyshire neck, is generally associated with the deformities that betoken cretinism, and ascribed to endemic influences of the same nature. The influences are such as tend to idiotic deformities of head, a dwarfish, misshapen person, beastly propensities, and idiocy of mind. Every degree of influence is impressed on subjects; some betokening but little of the taint, while others, on whom the vicious influences fall most heavily, degenerate from a bright early infancy to a state of complete idiocy, and the most disgusting deformity. The taint is not inherited, as the children of cretins removed from the localities grow up without deformity; and is doubtless acquired, as infants from other parts transplanted to those mountain gorges, many of them take on the bias and grow up deformed and debased cretins.

Still another striking illustration of topographical or endemic influence is manifested in persons who work in, or are reared in mines, below the surface of the earth. A considerable proportion of persons, so circumstanced, finally become the victims of a form of anæmia more marked with a perfectly blanched or etiolated expression of countenance, and depraved habit and condition of the system, than are manifested, even, by the subjects of puerperal anæmia, the

disease which is the subject of this essay; their blood fades, their strength fails, the skin assumes a transparent alabaster appearance, and a hydræmic state of the system prevails.

These are well-known, uniform, and strongly marked illustrations of topographical influences, not to speak of others; and whether they depend on specific, inscrutable poisons present, or are owing to modifications of the general laws governing climates—modified impressions of the vital stimuli—is not a settled matter. If climatic influences have effected the differences in the physical conformation and complexion of the several races, the doctrine held by many, and which must be taken for granted, if all have descended from one pair, it were more conformable to analogy to impute the endemic influences present in any region to climatic laws, rather than to specific miasms; for let the occupants of the different topographical localities, or elevations, spoken of, be transposed, and their systems tend to undergo the modifications of acclimation, a climo-vital process injurious in proportion to extreme susceptibility, tenderness of age, or faulty organization; the efforts of nature (often overshooting the mark) seem to induce the pathological conditions spoken of. Hence, both the danger and advantage that may result from emigration. Hence, also, the origin of the term acclimated. Native organization renders persons more or less adapted to particular climates, and a change of residence is a great resource for invalids.

It follows, then, that there is no climate, topographical position, or class of endemic influences, present in any one region of the world, perfectly healthful for all races, ages, and constitutions, as a permanent residence the year round. Birds instinctively migrate, to avoid the extremes of heat and cold. Men do the same thing rationally, and escape endemic causes of disease, developed only under extreme thermometrical influences. Transfer a New Orleans negro to Canada, and he falls a victim to the climate in a year or two; the same of the Canadian who takes up his abode permanently in New Orleans. A striking example of *artificial*

endemic influence is seen in the cruel process of producing enormously enlarged livers in geese, by confining them in hot-houses, or before fires, and giving them full supplies of food and water, for the purpose of preparing from their livers, thus several fold enlarged and deliciously softened by their best blood, the delicate pie so esteemed by the gourmand, called *paté de foie gras;* and this artificial illustration of endemic influence producing visceral engorgements, is by no means barren of instruction in a discussion on topography, climatic influences, malaria, etc. The result is uniform, so far as we are enlightened, and no one would pretend to explain it, we presume, on the hypothesis of the presence of a malaria, though an epidemic should be thus instituted in the geese quarter by the proprietor of a restaurant.

Topography in aid of medical science, then, is to be studied, with reference to physical causes that are known to modify the public hygiene, by affecting climatic modifications in the surrounding vital stimuli, viz.: *food and drink, atmospheric air, heat, light, and electricity;* all of which being absolutely necessary to life, are, therefore, called *vital stimulants;* and no truths in medical philosophy are better known and established, than that mild or medium impressions are salutary, and extreme impressions hurtful. These axioms hold good in regard to the impressions of each and all of the vital stimulants,—the extremes destroying life, and the mean impressions upholding it and maintaining health. These, then, are the natural causes of life and health, and the natural causes of disease and death of not only man, but of the whole organized world, animal and vegetable; and whether or not there are any other *external* causes of disease, except accidents, is very questionable. As to the existence of any substantive essence, or imagined malaria or miasma, supposed to be the cause of the endemic diseases of a country, we are altogether skeptical, or rather, be it said, we disbelieve the hypothesis *in toto.* Changes in the force, quantity, or quality of the natural, vital stimuli, as applied to, or as acting on constitutions or organizations well or ill-adapted to sus-

tain the impressions, are, doubtless, adequate and sufficient to carry out the purposes of Deity in the rise and fall, the life and death, of man, and all other forms of organized existence. Those being our views, in brief, without detaining the reader with a recital of more than the above general principles bearing on this subject, we proceed to take a summary glance at those physical causes and phenomena in Illinois, that modify the healthfulness of the climate.

PHYSICAL GEOGRAPHY.—The Mississippi Valley is flanked on the east by the water-shed of the Alleghany Mountains, the highest altitude of the summits of which is about five thousand feet; and on the west by that of the Rocky Mountains, the highest peaks of which are some fifteen thousand feet high. The two inclined plains from these water-sheds bear forward their surface-waters, from the east and from the west, into a common longitudinal trough—the Mississippi River, which has its sources in the paludal summit-level region (latitude 48° N.) that bounds the valley northwardly, and divides it from the waters that fall into Hudson's Bay, the altitude of which summit is about one thousand feet above tide-water. The whole Mississippi Valley, then, pitches to the south nearly one foot in a geographic mile, by which arrangement all its lateral tributaries are deflected southwardly in traversing the two inclined plains, to pour their waters into the great central longitudinal channel of the valley, which bears off all both right and left, onward and downward to the Gulf of Mexico, lat 29° N. Throughout the entire valley, from the sources of the Mississippi to its mouths, intermittent, remittent, and continued bilious fevers are endemic in summer, strongly *epidemic* in some seasons, and increase in force or grade in descending the river, inversely as the latitude decreases, till, at New Orleans, the highest grade of bilious fever passes into yellow fever, which, is often epidemic there.

The state of Illinois lies mid-way between the sources and mouths of the Mississippi River on the eastern side of it. Along its northeastern border, near Lake Michigan, is an-

other summit-level water-shed, dividing the St. Lawrence valley from the valley of the Mississippi, elevated about six hundred feet above tide, which turns all the waters in a southwestern direction. At the mouth of the Ohio River, the Mississippi is some three hundred feet above tide, consequently, the whole area of Illinois is an inclined plain, facing the southwest, pitching some three hundred feet, and presenting the warmest exposure of any topographical arrangement whatever. The extreme southern limit of the State, at the confluence of the Ohio with the Mississippi River, is in latitude 37° N., and its northern boundary is 42½° N., and it lies between 10° and 14½° of W. longitude from Washington, being three hundred geographical miles long by about two hundred and fifty broad.

This general view of the hydrography and topographical inclination of Illinois, reveals an exposure of the hottest character, combined with stagnation in drainage; or such a very moderate descent southwestwardly, that the whole face of the State is so tardily drained of the surface-water from rains and snows, that cold and humidity in winter, and heat and humidity in summer are inevitable results, until the retarded surface-water is evaporated, after which heat and drought not uncommonly close the season. We will now proceed to speak of the leading topographical features of the different sections of the State.

SOUTHERN ILLINOIS.—Notwithstanding the physical features of the State of Illinois are such as to give it the character of a level country, still its surface in some parts is a good deal diversified. The southern portion of the State, say about one-fourth of its latitudinal extent, is, much of it, very hilly and broken, abounds in lime-rock, cliffs, ledges, ridges, and abrupt gorges, and is generally covered with stately forests of oak, hickory, poplar, maple, linden, sassafras, sycamore, etc. Grape-vines are abundant and attain to a remarkable size, sometimes nearly twelve inches in diameter, and the sassafras tree, which is only a shrub in more northern regions, often presents a trunk eighteen inches or even two

feet in diameter. A hot-house effect seems to be produced on vegetation in some localities, resulting from topographical causes and an extraordinary richness of soil, viz.: alluvial bottoms with southern exposure, along the Ohio, Mississippi, Big Muddy, and Kaskaskia Rivers, protected by bluffs and forests from the presence of even a coast breeze from the north. This is the case with the alluvial point or extreme southern terminus of the State, where the city of Cairo is situated; and while it may be said to be geographically the most eligible and magnificent location for a city in the Mississippi Valley, the curse of *malaria*, according to the received hypothesis, but as we render it, extreme impressions of the surrounding vital stimuli, will forever render it an unhealthy place. The same thing may be said of other low, humid, confined, oven-like localities in the southern peninsula of the State. These southern regions of Illinois, particularly along the rivers, are rugged without being picturesque; but proceeding northwardly, towards the interior of the State, the beautiful and fascinating prairies soon appear. We speak from personal observation, having, the Wabash counties excepted, threaded and explored, on horse-back, the whole length and breadth of the State, from the junction of the Ohio and Mississippi Rivers to the Wisconsin line, Fever River, and the shores of Lake Michigan; we have traversed its prairies, some of them full thirty miles broad, without a ravine, or a tree, or a "lost rock" even by which to mark our progress, or guide us in our direction; we have coursed its rivers by steamboat, and its canal and railroads are familiar to us.

MIDDLE ILLINOIS.—The middle portion of the State—say a latitudinal zone embracing one-half of the length of the entire State—has ever been regarded the *ne plus ultra* region for agricultural purposes, and is of unsurpassed beauty and loveliness in its appearance. It used to be spoken of by our friend, the late Hon. George Forquer, as a "belt" of country pre-eminently adapted to agriculture and railroads; and so frequently was it designated by the appellation of the "belt" in his legislative speeches, during the internal improvement

mania of 1836, that he was addressed in debate, by a political opponent of less-favored southern Illinois, as "the gentleman from the *belt*." This beautiful champaign character of country extends across the entire State, from east to west, and the same general character of open country, or plains interspersed with groves and margins of forests along the water-courses, is continued west of the Mississippi, through Missouri and Iowa, and so on to the Rocky Mountains. In the heart of this broad belt of fertile country, in the centre of Illinois, is situated the Sangamon River region, the model portion of the State, and a description of this will serve for a type of the whole State.

The soil is a deep, black loam, of variable depth,—say from one to three feet,—often of much greater depth, where the debris of the soil has accumulated by deposit, lying over a chocolate-colored subsoil, of from five to ten or more feet in thickness, and this on a hard pan of blue clay of several feet, sometimes twenty feet, in thickness, impervious to water. Under the blue clay is quicksand, and in sinking wells, wooden curbs, water-tight, are necessary to ensure progress after penetrating the clay. The water below the clay, as well as the surface-water, to some extent, is impregnated with carbonate of lime, decomposing soap, and rendering turbid solutions of acetate of lead or nitrate of silver; in other words, the wells afford only hard-water. The surface water, in the wet season of the year, viz.: spring and early summer, is inconveniently superabundant; for, as little or none penetrates the blue clay, the summit level prairies present frequent sheets of standing water, or ponds waiting the process of evaporation. These vernal ponds are often diversified with archipellagos of gopher hills and cray-fish chimnies; and when the prairies were not burnt over in the autumn previous, the dried weed-stalks often stand six or eight feet high, sparsely, all over those wet prairies. These summit-level plains between the water-courses, then, are not only open prairies, but often impassable morasses, on account of this miry condition of the surface, in the earlier

season of the year. The settlements or farms range along the timber-lines, or forest-belts, that skirt the water-courses on either side.

The rivers run in deep, broad gorges, presenting the appearance of abrupt chasms, sunk below the common or general level of the country. The chasms are broad and deep, in proportion to the size of the rivers; the chasm in which the Mississippi River runs will average, perhaps, some seven miles broad; that of the Illinois River, about three or four miles broad. The borders of these chasms are either lime-rock palisades or conical hills, with frequent gorges or ravines between. They are called "the bluffs;" are generally clothed with forest timber, sometimes only with grass. The bluffs are high in proportion to the magnitude of the river, and vary in altitude at different points. The bluffs on the Mississippi are frequently two or three hundred feet high, and sometimes present a palisading of lime-work of this altitude for twenty miles in extent, only interrupted by the frequent narrow rivulet and creek-gorges that cut their way through the rocks. The marginal forests that skirt the rivers are broad, also, in proportion to the size of the river, and vary in width at different points. The skirting forests on the Mississippi, between the verge of the bluffs and the upland prairies, are not unfrequently ten miles broad. In the Sangamon region the creeks even have marginal forests of two or three miles in width, and the timber is lofty, even to the prairie line—bold, lofty oak and walnut timber of the finest quality on one hand, and the most desirable prairie land imaginable abruptly opening along this fine forest growth on the other.

The alluvial land lying in a river chasm between the bluffs, is called a "bottom." It is almost a perfect level from bluff to bluff. In some places the bottom lands are clothed with the heaviest and most dense forests conceivable, and in others they present an open plain, or prairie surface. The river cuts a tortuous channel through this alluvial bottom, at one time hugging the right hand bluff, and then playfully seeking the left. In extremely high water, when a river over-

flows its banks, the water may extend from bluff to bluff, and the river be, indeed, six or eight miles wide.

This character as regards the rivers and creeks of southern and middle Illinois is universal, there is no exception; and the smallest creeks are miniatures of the Mississippi; the abrupt bluffs, the level bottom, the tortuous channel, the muddy water, absence of pebbles—and question whether you will get through or sink in the mire in attempting to ford—characterize all the streams. There is no such thing as a gradual descent to a river. As you approach a river from the open country or summit-level, the prairie begins to be more rolling near the timber, caused by the sloughs which carry off the surface-water. Along this rolling character of prairie are the cultivated farms, and residences of the yeomen of the country. Finally, the surface becomes hilly and rough, and this character of surface is always clothed with brush or forest timber. Now you are getting into the bluffs. The gorges of the sloughs deepen and widen about in the timber; the hills pitch and swell more and more fantastically, as you approach the river, till, at last, you find yourself on a precipice overlooking the river chasm or bottom, which lies, perhaps, some two or three hundred feet below, and the bluffs on the opposite side of the river gorge full in view.

Some of these views from the verge of the bluffs are of unsurpassed beauty and loveliness. We question whether the human eye ever rested on a more beautiful landscape scene than is presented at the verge of the bluffs west of Edwardsville, at the head of what is called the American Bottom. You stand high above the scene, on the greater curvature of an immense crescent, the horns of which are distinctly defined for twenty miles on either hand, up or down the Mississippi; the towering bluffs of the Missouri side are full in view; and the grand confluence of the Missouri with the Mississippi lies before you in the valley, which is richly diversified with forest and prairie, and the most highly cultivated farms. But beautiful as is this im-

mense bottom, an hundred miles long by an average of six or eight broad, reaching from Alton to Chester, and productive as it is, yielding an hundred bushels of corn to the acre, an hundred years in succession, without manure, still it is like the rice plantations of Georgia, or the shores of an African river, in the production of malarious fevers of the most aggravated forms and pernicious type.

NORTHERN ILLINOIS.—The northern part of the State presents quite a different topographical character. North of a line passing from, say about the mouth of Rock River, eastwardly to Ottawa, and up the valley of the Kankakee, the peculiar characteristics of the more southern rivers are gradually lost; the water in them becomes clear, their channels pebbly, often rocky; their course less tortuous; the banks sloping; the precipice-bound river chasms disappear; the rivers are less affected by spring freshets, or by drought in summer, and the drift of geologists is more common; in some places hundreds of granite boulders appear on a single prairie. The Rock and Fox River Valleys are, perhaps, the best wheat regions in the State, and the water power in those rivers is unlimited. The forests are thin and less lofty than in Southern and Middle Illinois. The face of the country is more rolling, and the prairies more undulating and better drained, than in the Sangamon region; but the soil is not so deep, and is more silicious and gravelly. Wheat is the great staple; corn appears stunted. Upon the whole, it cannot compare with Middle Illinois as an agricultural region, in adaptation for stock raising especially.

THE MINERAL COUNTY OR GALENA DISTRICT.—This region presents the appearance of an interminable jumble of bald hills. The native forest growth, wherever it existed, has been appropriated to smelting uses, and the eye is fatigued with the sameness of the scene, where all the hills seem to be of equal hight, as if cut down out of a level country by sinking surrounding gorges. The city of Galena is built in a deep gorge of these hills occupied by Fever River. There is barely space for one business street along

the little, insignificant river, so that the back streets have to be cut, terrace-like, in the hill sides. They are reached by carriages with difficulty and danger. There are few cross streets, it being impossible to ascend the hills in a direct line from the river. One-half of the city has escaped from this gorge, and crowns the summits of the hills, some two or three hundred feet high; and, for the convenience of transit up and down, wooden stairways are erected. There are two climates, therefore, in Galena; the climate under the bluffs being desirable in winter, and that above the bluffs in summer.

Agriculture has been greatly neglected in all the mining country, not half enough provisions being raised for home consumption. The country presents no inviting aspect to the farmer; unlike most other localities in the State, the prairies are broad, and without groves of timber, from Galena to the Rock River settlements, eastwardly, and, therefore, not settled upon; and the consequence has been, that supplies, not only for the mining population, numbering, perhaps, ten thousand, but for about an equal population in the city of Galena, have been hauled from the Rock River mills and farms, or shipped from St. Louis. Despite all these disadvantages, Galena has grown to be a rich and prosperous city, owing to the mineral resources of the surrounding country. It is situated some seven miles up the gorge of Fever River, in the Mississippi Bluffs, and the river is rendered navigable only from the back water caused by freshets and floods of the Mississippi. Were it deprived of these accidental advantages, Galena would be without its shipping list. The completion and opening of the projected railroads to Galena will do much for the mineral country.

THE LAKE MICHIGAN DISTRICT.—This region discloses a different topographical character altogether from any portion of the State. The approach from the Des Plaines or the Kankakee River, is over a flat prairie of from twelve to thirty miles broad, constituting the summit-level water-shed between the Mississippi and St. Lawrence Valley. The sur-

face-water of this table is only gotten rid of by evaporation in the main. The soil is thin and sandy, and a clayey hard-pan lies under it, which prevents the water from sinking readily. The Des Plaines River banks are only some twelve or fourteen feet higher, topographically, than the Lake Michigan shore; and in the highest freshets, when the Des Plaines overflows its banks, a portion of its waters finds vent into an arm of the Chicago River, and so into Lake Michigan. The first and highest bed of the Illinois and Michigan Canal, some thirty miles in extent, from Chicago to Lockport, is supplied by water raised by pumps from the Chicago River, a lockage of some ten or twelve feet lift, and by means of a feeder taken from the Calumet River, which rises in Indiana and falls into Lake Michigan, in Illinois, some twenty miles south of Chicago.

The Lake shore is clothed with forest timber, except at two points, viz.:—at the mouths of the Chicago and Calumet Rivers. The immediate shore is a sandy beach, much traveled in early times before roads were opened. Back of this the sand is blown into hills, drifts, or dunes, of greater or less elevation, which increase in hight towards the southern bend of the Lake, where they are an hundred feet high or more, and several miles broad. Thus the shore is heaped up, and is higher than the land back of it, which always prevents any distant view of the Lake. The rivers creep through these sand hills, and disembogue with difficulty—their mouths being all deflected by bars, up the Lake, in some instances many miles, by the powerful north winds.

The Chicago River, since its harbor has been improved by dredging through the sand-bar at its mouth, and the erection of piers, presents a tolerably straight main trunk of about one mile in length, running nearly due east. The main trunk is formed by two branches, one from the north-west, and the other from the south-west, draining, as well as they can, the flat lands lying back from the Lake. The river and its branches are narrow, deep, and navigable, and without apparent current except in time of freshets. On the

three sides of this tripod river, stands the flourishing city of Chicago, which, within the last twenty years, has advanced from a mere trading post to be the leading city of the Lakes, having a population at this time—March, 1854—of over 60,000 inhabitants.

Fort Dearborn stands at the mouth of the Chicago River, on the right bank, the highest ground in the city, elevated some twenty or thirty feet above the waters of the Lake. The exceeding flatness of the city plat renders drainage difficult; the surface-water fills all excavations made, except in the dry or autumnal season of the year, not only in the city, but in all the country round about, so that cellars and root-houses cannot be sunk in the ground, but, if had at all, must be constructed above ground: this, however, is not altogether peculiar to the Lake Michigan District. The surface-water is a great impediment to the sinking of cellars in most parts of the State—so much so, that the majority of families are deprived of this most necessary convenience in the economy of house-keeping, to the great detriment of the public health. The humidity of the atmosphere is, of course, very great throughout the State, but probably in no locality so great as at Chicago, or within the Lake Michigan District. We have known the snow to fall six inches deep along the Lake shore, while the ground remained bare six or eight miles west. A large amount of rain falls during the year; there is much dull cloudy weather during the winter and spring seasons. The spring is always retarded by cold, and frequently deluged with rains, and at best greatly interspersed with the chilling "Mackinaw breezes," that are often felt thirty miles westwardly in the interior, and are characterized by great humidity and coldness. After hoping, and expecting, and waiting in vain for genial summer, fires are often found necessary to comfort as late as the fourth of July. From mid-summer on till November, the climate of this region is paradisiacal.

THE MILITARY TRACT.—This attractive region lies in the forks of the Illinois and Mississippi Rivers, and belongs to

Middle Illinois, but presents some peculiarities in its topography worthy of a passing notice. The southern, narrow peninsula is an elevated spine of lime rock, along the Illinois, and a fine alluvial bottom along the Mississippi, six or eight miles broad. This elevated spine is of an acute triangular shape, and is covered with timber. Proceeding northwardly on this spine or elevated bluff, (not unfitly compared to the back bone and ribs of an immense animal,) the timber finally begins to grow thin, and at last the prairies appear. The prairies are, at first, very broken, having rather the appearance of bald hills than prairies, and this very rolling character of country prevails throughout all the southern portion of the Military Tract, up to the Quincy and Rushville regions. The prairies are rolling, dry, and not so wide as to deter settlers from locating anywhere upon them; hence the population is more evenly spread over the counties in the Military Tract than elsewhere. The surface-water is less annoying, and the drainage of the country better; and really this region should be the healthiest portion of Illinois. It probably is, and yet the causes which produce the *nursing sore mouth* exist here; for we have met with inveterate cases of it in different localities within the limits of the Military Tract, which will be referred to in our analysis of cases.

METEORIC PHENOMENA.—Sanatory surveys, the object of which is, to point out and elucidate both the general and local causes of the endemic diseases of a country, which are always obscure, carefully investigate the topography and meteoric phenomena. Following this method, we proceed to take note of the prominent peculiarities or characteristics of the meteoric phenomena in Illinois, or the constitution of the seasons governing production—the abundance or scarcity of the crops and fruits from year to year, and the concurrent state of the public hygiene. Without attempting to be minute or technical, our aim will be to develop the leading facts that bear upon the etiology of diseases, especially the *nursing sore mouth affection*, the subject of this essay.

We well remember the three most prominent evils that beset us in our early peregrinations over the prairies, and which constituted the chief drawback to our happiness, viz.: high winds, wet prairies, and poor diet. We lost about twenty pounds avoirdupois of ourself during the first spring and summer—the first half year of our pilgrimage there—when of adipose or muscular tissue we had never a superabundance, and can, therefore, speak experimentally and feelingly of meteoric influences. Let the reader imagine himself a practitioner of medicine there, and called, in the month of March, to see a patient twenty-five miles in the country (a not uncommon ride in those sparse settlements), his horse up to the fetlock in the mud every step when on land, and when in the water, in crossing sloughs and fording creeks, no matter how tall the steed, the rider's feet must be unstirruped and folded kimbo on his nag's sides, or his boots will fill with water; let him fancy Boreas let loose, and, unobstructed by hill or copse, bestowing his best endeavors on him the whole distance; let him consider the amount of disintegration of the system, blown off in the shape of insensible perspiration during the day's ride, and consequent call for repletion; and then let him seat himself at the humble family board, and partake of their best bill of fare, viz.:—fried bacon and hot biscuits, raised with lard, coffee, of course, to wash it down. The potatoes had all been frosted during the severe winter, the cabbages too; of turnips, the season of sowing was so dry they did not come up; of fruits they had none, for it was but their second year in the country, and it is rare that a settler raises any fruit short of a residence of ten years there. Now, the reader can almost make oath that, whatever may be the nature of the acute attack of his patient—phlegmasial, malarial, typhoid, or puerperal—*meteorology* and its influence over the state of the vegetable supplies—the absence of vegetables in the dietary—has special agency as causation of this case, or aggravation, at least. This is not a solitary picture, but a general illustration of the state of things we

encountered in the winter and spring of 1835, the second year of our meteorological and medical observations at Springfield, Illinois, the present seat of government of that rapidly progressive State.

The Rains and Snows that annually fall in Illinois, equal, if not exceed, the average fall in the same latitudes and elevations, anywhere in the United States. The whole State is a low country, and but little snow generally lies upon the ground, during winter. In the winter of the "deep snow," 1831–32, when all the eastern harbors nearly were closed by ice, tradition says: "the snow was about two feet deep throughout Middle Illinois, and that winter lingered in the lap of May." We have seen the snow some fifteen or eighteen inches deep, two or three times, in the course of nearly twenty years, and the lingering disposition of winters of this character, has sometimes interfered with planting and sowing in the spring, and abridged the crops of the succeeding summer and autumn; still it is undeniable that the want of snow during the winter, as a protection to the wheat, is generally everywhere felt in the State.

There is this about the rain, and which bears immensely on the vegetable productions, and, no doubt, the general health of the country; "it never rains, but it pours." From midsummer, on through the maturing of the latter harvest, the sowing of turnips, and of wheat, there is frequently great and prolonged drought, with excessive heat. We remember one season, 1838, in which there was no rain in Middle Illinois, not even a shower, from July to January; and the heat was excessive in the months of July, August, and September. The crops, particularly potatoes, turnips, cabbages, etc., were very short. The drought was severe and extensive; the rivers always disposed to dry up in summer, in Illinois, went totally dry that summer, and in some localities, the live stock strayed off in search of water, and famished in great numbers.

Recurring back to the year 1834, the same hot, dry character of season prevailed, following a frosty, blighting spring.

The crops and fruits were cut short throughout the State. The following winter was rigorous, and the spring and summer of 1835, excessively wet, so much so, as greatly to embarrass and abridge farming and gardening operations. About midsummer, excessive heat again set in, and this was the most sickly season ever known in the State. There were hardly well persons enough to take care of the sick. We paid that spring, twelve dollars a barrel for flour, in the heart of that wheat-growing country, and two dollars a peck, (eight dollars a bushel) for potatoes, to plant in the garden. Seasons marked by the characteristic here given, have always, according to our observation, been attended with great sickness and mortality; and we have been led to infer that there is an important connection between the state of the crops, or dietary of a country, and the state of the public health.

The reader should have personal observation of a thundergust, and experience one ten miles out on the prairies of Illinois, in order to fully appreciate the furious majesty of the scene, and understand the applicability of the adage "it never rains but it pours." The early spring not unfrequently, opens dry and beautiful, after the melting of the frosts and snows, and plowing, sowing, and planting, are opportunely accomplished; when, in the middle of May, or first of June, the thundergust-rains set in, and not unfrequently keep the country deluged till midsummer; drowning out the hopes of all the flat prairie farmers, and washing out the labors of those, on the more rolling farms. We have seen acres of young corn washed out of the furrows, and whole fields of it submerged, and doomed to a yellow sickly abortion. Seasons of this character, are incompatible with the growing of a crop of potatoes, the great staple succulent vegetable in all parts, and it proverbially happens, that one extreme follows another, and that the drought of the latter part of the season prevents the growing of turnips, and the maturing of garden roots. Indeed, the growing of garden vegetables, in general, is much neglected by the early settlers; culture with the plow in the cornfield, is the great and all absorbing business

of the planting season; for, according to the crop of corn, so is the amount of the marketable staple, pork, from the annual returns of which, the hard working yeomen rely to pay for their dry goods, groceries, etc., etc.; so that we may say, there never was, during the period of our observations, a full supply of succulent table vegetables raised, consumed, and put up for winter use; and in the cold, wet seasons, there was a most lamentable deficiency, and this scanty supply was often frosted, and still further abridged for the want of cellars and root-houses for their preservation.

An incident, not irrelevant, is here introduced, illustrative of the deluging summer rains that fall throughout this prairie country, and the waspish character of the creeks, that are often swollen by a single shower so as to be past fording. A little dried up rivulet, even—nothing, in fact, but *a place for a creek*—a gorge between the lime-stone bluffs, with, at most, but a stagnant pool now and then along the deep holes and turns, to mark its course, will verily assume a most formidable character, often in a few hours, so as to jeopardize, if not destroy, the life of whomsoever may attempt to ford its swollen tide. The locality or scene of the incident is as familiar to us as the road to the mill; we have often stepped the stream at the identical ford where the drowning occurred, without wetting the sole of our boot, and laid hold of the boughs of the water-birch the fair one clung to, that, like the boughs of a Pope's willow, reach down their arms as if from heaven, to rescue such loveliness from the grave, or to mourn over it when consigned to an early tomb.

* * * * *

The torrents of rain continue to fall till after the summer solstice, and sometimes until the middle of July, when the flood-gates of the firmament are closed! heaven's artillery ceases, and the raining process is imperturbably suspended. We question whether one of Espy's mammoth fires, or Vaughan's heaven-piercing lightning-rods, or Cheop's or Popocataptl, even, would so galvanize the clouds as to in-

duce further out-pourings.* But there is no occasion for more; the rivers and creeks are all out of their banks, and extend from bluff to bluff; every upland pond-hole, marsh, lake, etc., is filled; and all the sink-holes and hollows along the bottoms are brimmed, and stored with fishes and reptiles, doomed soon to flap and flounder in the mud, and then to pass into their ultimate elements under solar heat; the great body of the summit-level country is in an equivocal teraqueous condition, and the soil and subsoil saturated to the blue clay. Another play of meteoric phenomena now presents. The unobstructed sun is busy through Leo, Virgo, and Libra, n restoring back to the air this flood of waters; and under powerful insolation, high temperature, and rapid evaporation, and consequent elimination of electricity by day, and a reversed process, powerful upward radiation, dew-sopping, and cooling, by night; and this debilitating, extreme impression of the vital stimuli prolonged for weeks and months, everybody nearly falls sick. The full development of these evident causes of sickness is witnessed sometimes early in July, while an abundant and young vegetation is fresh and luxuriant, even before the mid-day of its perfection, and never a blight has touched it; but while in its rankness, superabundance, and noon-tide of life, it takes from the air the gases hurtful to man and animals, and returns oxygen or

* It appears from the most modern views of meteorologists, that water is contained in the air in solution, as salt is dissolved in water; that electricity is the chief agent by which it is suspended—the electricity being produced by the friction of the air against the earth's surface; that evaporation is effected at the expense of heat and electricity; and that the air, surcharged with vapor, being specifically lighter, rises above the lower stratum of the atmosphere, which becomes an insulating medium between the clouds and the earth. To produce rain a connection must be formed. Espy has proposed to effect this by fire; Vaughan by a rod of immense elevation; and by thus drawing off a charge of electricity from the higher strata, portions of the dissolved water must be precipitated in rain. This view explains the meteoric phenomena of the low flat regions under consideration, and why it is either very wet or very dry; and, also, the reason why mountainous regions are more uniformly rainy and misty. It has been even suggested by Prof. Vaughan, that the pyramids of Egypt were built in order to the production of rain during the dry season.

pure vital air, belying the hypothesis of malaria from vegetable decomposition, unless it be thrown back upon the mould of preceding years, the constituents of the soil, which are now rather passing into new organic vegetable life again.

The Spring Frosts are sometimes severe, and occur late, blighting the fruits and crops extensively. Peaches, apricots, plums, and even apples, are rendered somewhat uncertain, owing to the severity and lateness of the spring frosts, incident to the sudden changes of temperature that occur after the showers set in, of which we have spoken. A frost occurred in the spring of 1834, about the middle of May, when the growing crops—corn, peas, beans, etc.—were several inches high, that killed, outright, all the crops, fruits, and tender vegetation, even the new growth of the forest twigs, a foot long, and foliage full grown. The forests presented an autumnal gloom; the leaves fell, and were succeeded by a new budding process, and the shooting forth of fresh foliage. The blighting influence of this frost in the spring of 1834, and the withering drought of the summer immediately succeeding, cutting off and abbreviating all the fruits and succulent vegetables of the country that year, has always appeared to us to hold a direct relation to the extremely sickly season that followed the summer of 1835. Repeated coincidences of a like character have shown a relation—like cause and effect to exist between short crops of vegetables and fruits, and sickly seasons.

The Autumnal Frosts are generally postponed until the summer crops are matured, and, therefore, do but little injury. Occasionally the crops are abbreviated by an early autumnal frost, but oftener by drought at this season. The native fruits are few, but the crab-apple and wild-plum are hardy, and generally abundant, though they are not sufficiently appreciated by the early settlers before orcharding can be cultivated, and the products help to protect the public health. The gooseberry and black currant are also natives, and when transplanted to gardens, and cultivated, are great bearers, and the fruits exceedingly fine; but their

cultivation is also neglected. There is no disposable force to be spared during the rail-mauling and prairie-breaking years of a settler's efforts for a wide farm, and consequently fruit culture and gardening are neglected, and the health of every family is thereby jeopardized.

The proposed limits of this essay will not allow us to discuss in full all points connected with the topography of this great, beautiful, rich, and wonderful State. Its geological formations, coal and other mineral deposits; its fauna, and the rich profusion of its native plants, must be passed over. All these are matters of interest to the lovers of natural science, but have little bearing on the subject of our inquiry, which is strictly medical.

PART SECOND.

CRITICAL ANALYSIS.

ART. VI.—*Traité des Fractures et des Luxations.* Par J. F. MALGAIGNE, Chirurgien de l'Hôpital Saint Louis, etc., etc. Avec un Atlas de 30 Planches, 2 vols. J. B. Bailliere. Paris: 1847–1855. . . pp. 1950. . .

[*A Treatise on Fractures and Dislocations.*—By J. F. MALGAIGNE, Surgeon of the Hospital St. Louis, etc., etc. With an Atlas of thirty Plates, etc., etc.]

[*Continued from Page* 278.]

THE second volume of M. MALGAIGNE commences with some general remarks on the confusion existing in reference to the nomenclature applied to various dislocations, and concludes that, as yet, perfect precision in this respect has not been attained. The safest method would be to follow custom, were it not that many errors must thus be sanctioned.

"As for myself, I shall endeavor to employ such terms as are most clear, exact, and admit of being most easily remembered. And, although I care more for things than words, I shall aim so to describe different lesions, as to avoid misapprehension."

He recognizes three great divisions of dislocation: the traumatic, pathological, and congenital. Although the traumatic are more frequent than all the other varieties, still he asserts, that these luxations are very rare. Of one thousand five hundred and fifteen patients treated by Dupuytren, in 1828, there were but twelve luxations, and of three thousand nine hundred annually received from 1818 to 1820, in the Hôtel-Dieu, of Lyons, under the care of M. Janson, there were but twenty affected with dislocations. The relative proportion of these cases, however, as M. Malgaigne very properly observes, depends greatly on the situation of the hospital—for example, at the St.

Louis, where many cases of injury are admitted, of six hundred and nineteen patients under the care of our author, in 1849, there were twenty-four suffering from the accident under consideration. In visiting the British hospitals, we think it will be found, for the same reason, that more cases of dislocations are treated at the London Hospital, than at any other in that metropolis. In examining this subject, Dr. Norris found that, in ten years, for every nine hundred and fifty-nine fractures admitted into the Pennsylvania Hospital, there were ninety-four dislocations. Under the head of Etiology, we have some interesting observations on the influence of age, sex, seasons, the liability of different joints, and of different constitutions. Sir Astley Cooper maintained, that old persons are much less liable to dislocations than those of middle life, and that young persons are also very rarely the subjects of dislocations from violence. M. Malgaigne, is of the same opinion in reference to children, but declares that Sir Astley's doctrine is by no means true as regards the aged, and in proof adduces the following statistics of cases, collected at the Hôtel-Dieu and at the St. Louis—the last having been under his own observation.

Age.	Hôtel-Dieu.	St. Louis.
From 2 to 5 years.	1	"
" 5 " 10 "	4	3
" 10 " 15 "	8	5
" 15 " 20 "	29	7
" 20 " 30 "	72	21
" 30 " 50 "	182	42
" 50 " 65 "	154	29
" 65 " 70 "	42	4
" 70 " 75 "	19	3
" 75 " 90 "	18	"

From this it would appear that luxations are very rare in early infancy; that they gradually increase in frequency to the age of fifteen, and again, suddenly, to the age of fifty years. Then, instead of decreasing, as stated by Sir Astley Cooper, for the next fifteen years the relative proportion is greater than at any other period of life. Even after the age of sixty-five, the proportion is far beyond that of the adult. Sir Astley, as is well-known, attributed the rarity of dislocations in the aged, to the softened state of the extremities of their bones, which renders them more liable to fracture than to dislocation. This explanation, says M. Malgaigne, is as destitute of foundation as is the assertion based upon it. In the volume on Fractures, page 3, our author has shown that, after sixty years, the relative proportion of fractures diminishes instead of increases, and the facts already

adduced prove that old age is less subject to fracture than to dislocation.

As to the influence of sex, we may state, that the female, in comparison with the male, is more liable to fracture than to dislocation, even during all periods of life. When preparing for our first visit to the hospitals of Europe, at the suggestion of the late J. Kearny Rodgers, we resolved to question the oldest and most experienced surgeons, in reference to the number of cases of dislocations of the femur, in the female, which had come under their observation. The inquiry, even when proposed to such men as Mr. Stanley, invariably required quite a retrospect before they could refer to a single case. Within the past six weeks, the writer has reduced a dislocated femur (traumatic), in a girl seven years of age. We know that Sir Astley Cooper is disposed to question the accuracy of the diagnosis in this instance, reported at this early age, but it should be remembered, that he has himself given the details of one which occurred at the same period of life. M. Malgaigne states, that of thirty-four cases of luxations of the femur at the Hôtel-Dieu, but eight were in the female, and of seventeen seen by himself, all but *one* were in the males. As to the extreme periods at which the accident has been observed, we may here state that Lisfranc reduced one in an infant of eighteen months, and Gauthier saw another in a female eighty-six years of age. The rarity of dislocation in the female, as well as in infants, is according to our author, a sufficient refutation of the doctrine of Sir Astley Cooper, that persons of lax fibres are those in which the predisposition to dislocation most strongly exists. Is not a more rational explanation to be found in the fact, that the subjects alluded to are far less exposed to the violence by which the accident is commonly produced.

Pathological Anatomy.—This is by no means on a level with that of fractures. Opportunities for dissection are rare, and experiments on animals are more difficult and less satisfactory. Our author examines the subject under the following heads :—1. The condition of the parts in a recent luxation. 2. The changes in old dislocations. 3. The mode of reparation after reduction. Our limits will permit us to notice only those points which bear on the difficulties in the reduction, as, without an accurate knowledge of these, our practice must be irrational and unsuccessful. In recent luxations the principal obstacles to reduction arise from the muscles, ligaments, and the bones—M. M. Vœlkers and Michel, have attached much importance to atmospheric pressure. In old dislocations, the most powerful obstacles are caused by new ligamentous or fibrous adhesions. In a recent luxation, according to our

author, the muscles may resist: 1. By simple or physiological retraction. 2. By the force of tension. 3. By contraction. 4. By pathological retraction—the result of inflammation. Sir Astley Cooper speaks of the *tonic* contraction of the muscles, firmly maintaining a dislocated bone in its new position. Bichat applied the terms *contractility of tissue* to designate the slow, insensible shortening of muscular fibre to what is known to modern physiologists, as *tonic* contraction, and to which Boyer attributed an exaggerated influence, not only in producing but in preventing the reduction of dislocations. The *pathological retraction* of M. Malgaigne, the result, as it is, of inflammation, is at times a source of serious difficulty, and if rudely encountered, may give rise to extensive lacerations, suppuration, gangrene, and even tetanus.

"For this reason," says our author, "it has been the rule of practice, from the days of Hippocrates to the present, not to attempt reduction until the inflammation has been subdued by appropriate treatment."

Professor Gunn, of the University of Michigan, has published a paper in the *Peninsular Journal of Medicine*, for July, 1855, in which he opposes the views commonly entertained in reference to the influence of the muscles, in resisting the reduction of dislocations. The principle he seeks to establish is:—"that in luxations of the hip and shoulder, the untorn portion of the capsular ligaments, by binding down the head of the dislocated bone, prevents the ready return over the edge of the cavity, to its place in the socket; and that this return can be easily effected by putting the limb in such a position as will effectually approximate the two points of attachment of that portion of the ligament which remains untorn."

The untorn portion of the capsular ligament, in his opinion, constitutes, therefore, the chief, if not the only, opposition to our efforts at reduction. The same doctrine was maintained by Desault, but we believe the number of dissections yet made, is insufficient to establish its truth. Those made by Sir Astley Cooper, led him to remark that, "the capsular ligament is torn to a great extent," and both MM. Nelaton and Malgaigne are inclined to believe that the cases are rare in which the ligament offers the chief obstacle to reduction. In November, 1846, we witnessed the dissection of a dislocated femur, (upwards and backwards,) made at St. Bartholomew's Hospital, London, by Mr. Stanley, and the appearances presented corroborated the views of our author. In concluding his remarks upon this subject, M. Malgaigne gives us the following *resumé*:—

"In reference to their reduction, luxations may be embraced under these four divisions: 1. Those accompanied with inflammation, requiring the postponement of their reduction. 2. Recent luxations in which we have to encounter only physiological muscular retraction, and which require skill rather than force. 3. Recent luxations with interlocking of the bones, the interposition of ligaments rendering force sometimes necessary. 4. Luxations of long standing, in which either the state of the muscles or the fibrous adhesions, invariably existing, absolutely demand the employment of force."

In the reduction of dislocations, therefore, we have two distinct methods, viz.: the moderate and the forcible. This subject has been so fully discussed by Drs. Markoe and Reid, in the January and July numbers, (1855,) of this Journal, that we shall notice but briefly the remarks of our author, upon the best method of applying extension. The late Bransby B. Cooper, in his *Lectures on the Principles* and *Practice* of *Surgery*. Am. Ed. p. 276, observes that the use of pulleys appears to be confined to the English and American Surgeons, and "in France, it is said they are never employed." We think we may safely assert, that American surgeons are generally abandoning this method of extension, as the views of Dr. Reid of Rochester, N. Y., become more and more widely promulgated, but M. Malgaigne asserts, in opposition to Mr. B. Cooper, that the pulleys introduced by Ambrose Paré, about the year 1672 or 1675, having passed through various vicissitudes, maintain at the present time, a pre-eminence to which they are justly entitled. After noticing the various auxiliary means to which surgeons have resorted, our author remarks:—

But all of these must henceforth yield to the inhalations of ether and chloroform. It is to the latter that we must have recourse, whenever we would overcome muscular contraction, although it is well for the surgeon to be acquainted with other means when chloroform cannot be obtained. Dr. Reid, as our readers will remember, regards complete anæsthesia as a detriment instead of an advantage, as the muscles are our most efficient assistants in reducing, by manipulation, according to his method, although he would not apply his remarks to reduction by forcible traction or mechanical means.

Dislocation with Wound of Blood-vessels and Nerves.—Some interesting cases are referred to in this chapter, two only of which occurred at the elbow-joint, and were reported by Boyer, and Samuel Cooper. In our own practice we have met with two instances of compound dislocation of the elbow, with rupture of the brachial artery. Both patients were young, of good constitutions, and in both instances we succeeded in saving the limb.

Complication with Fracture.—This, our author asserts, is very rare. Of two thousand three hundred and fifty-eight cases of fracture admitted into the Hôtel-Dieu, in four only was the fracture complicated with dislocation. However, at the St. Louis, during a service of seven years, M. Malgaigne met with thirteen cases in one thousand and fifty-four fractures. The complication is often overlooked, and our author has the candor to acknowledge, that he has himself been guilty of this mistake. When the complication exists what is the appropriate treatment? Pasicrates, before the christian era, proposed that the luxation should be first reduced, and afterwards the fracture. Aristion, advised that attempts should be made to accomplish both objects at the same time. Heliodorus and Guy de Chauliac approved of the instruction of Pasicrates, and the same method of treatment was afterwards recommended by J. L. Petit. The latter, however, was in error, when he added that reduction is impossible, when the fracture is so near the joint as to leave no part to which extension can be applied, for it is not by extension, in such cases, that reduction is to be made.

Sir Astley Cooper regarded this complication as "generally incurable," especially when the head of the humerus is the part involved, for he asserts, "let the surgeon do what he will, the head of the bone will probably remain in the axilla," etc., etc. De Lamotte, Laroche, Gordon, and Houghton, have reported cases, in which they succeeded in reducing the dislocated bone, although, in these cases, the fracture was not through the cervical neck of the humerus. In the latter case, Dupuytren, with Sir Astley Cooper, believed that the skill of the surgeon could avail but little. Now, M. Malgaigne informs us that, in one thousand seven hundred and seventy-seven, Bottentuit was successful in two cases of the kind, and that M. Baroni has recently succeeded on the sixteenth day after the accident. More recently still, M. Richet has reported in the *Union Medicale*, (1852, p. 499,) a case in which, with the fingers, he pressed the head of the humerus into its natural situation. Those interested in this subject, will find a very interesting paper in the *New York Medical Times*, for July, 1855. By Dr. John Watson, of the N. Y. City Hospital. Dr. W. has given the details of two cases, in which he succeeded in reducing both the dislocation and the fracture.

M. Malgaigne quotes two cases of dislocation of the femur, complicated with fracture, successfully treated by M. Etève and Bloxham. But our space is too limited to dwell longer on this topic, and we conclude our notice of the remarks under this head, with the rule of

practice inculcated by our author:—"In the first place, attempt immediate reduction; should this fail, promote the union of the broken ends, and afterwards try again reduction. Should all our efforts prove unsuccessful, we must then try to restore to the limb its functions, by well-directed and persevering movements."

Passing over our author's general observations on pathological and congenital dislocations, to which, some sixty-seven pages are devoted, we come to the consideration of the special forms of dislocation. We do not pretend to follow strictly the order in which these are discussed. In the first place, we will notice our author's remarks on dislocations of the cervical vertebræ. Sir Astley Cooper, as is well-known, states that he never witnessed a case of the kind; the injuries in this region which came under his observation, "having all proved to be fractures with displacements." M. Malgaigne has collected three cases of luxation of the atlas from the occipital bone, which were observed by Lassus, Palletta, and M. Bouisson. From the details of these cases, however, it would seem that the displacement was not complete, although the accident in all, was at once fatal. Sir Charles Bell, saw two instances of sudden death from a separation of the atlas and axis; and M. Duméril reported another case to the Academy of Medicine, on the 6th of October, 1840. The difficulty in forming a correct diagnosis in these cases is very great. The position of the head is by no means pathognomonic, yet it is, of itself, sufficient to arouse the suspicion of the surgeon. If, after a careful examination, an unusual depression is felt between the atlas and the axis, with a projection posteriorly, or even along the spinous process of the axis; if the pain is confined to this situation, and the head can be no longer rotated; and finally, if the atlas can be felt, strongly projecting at the upper part of the pharynx, the probability becomes almost a certainty, and preparations should be at once made for reduction. True, but little can be expected from treatment; yet, the case reported by Mr. Benj. Phillips, in the *Medico-Chirurgical Transactions*, vol. xx., p. 78, shows that, even after fracture of the atlas and separation of the articulating surfaces of the occiput and the axis, life may continue for forty-seven weeks.

Luxation of the Radius.—Our readers will remember the interesting paper of Dr. Markoe, on luxation of the head of the radius backward, etc., etc., published in the May number of this Journal. Dr. M. considers this luxation physically impossible, without a fracture of the inner condyle of the humerus, and refers to the few reported cases that have fallen under his observation. M. Malgaigne has collected twelve

cases, the details of which, he states, are generally so imperfect, that it is difficult to decide whether the dislocation was complete or incomplete. He has himself observed one case, in which he is positive there was no fracture. The accident was produced by a fall, which was immediately followed by a cracking noise at the elbow, severe pain, and considerable tumefaction. The forearm was strongly pronated and held in a semi-flexed position by the other hand. There was deformity at the elbow joint; the tumefaction concealing the projection of the humeral condyle, whilst, posteriorly, and a little externally, the head of the radius could be distinctly felt, rolling beneath the fingers, when the arm was placed either in pronation or supination, and its cup-like depression was readily detected. The forearm admitted of extensive movements; but pronation was easier than supination, and extension than flexion. These movements produced, moreover, a kind of crepitation; although there was, in his opinion, no fracture. He adds that, in all of the cases reported, there was no doubt of the displacement of the head of the radius, backward; but, what is remarkable, the other symptoms resembled those of incomplete luxation, or, rather, of the luxation forward. The position of the forearm, therefore, has no real value in forming a diagnosis, and the only sign entitled to confidence is the well-marked projection, either of the head of the radius, or the condyle of the humerus. Our author refers to the tendency of the parts, after reduction, to become again displaced, and, from the strong disposition to this, manifested by some of the cases, it is exceedingly probable that the luxation was complicated, as in those reported by Dr. Markoe, with fracture of the inner condyle. We may add that, in addition to the cases collected by our author, another has been referred to by Mr. Lawrence, of London, which was seen by himself.—(*Lectures on Surgery, London Medical Gazette, July*, 1830.

Luxation of the Thumb.—Our author awards to Mr. Hey, of Leeds, the credit of having first properly described this accident, and the difficulties connected with its reduction. He enters into the examination of the causes of these difficulties. They have been attributed to muscular action, and the shortness of the lever to which the extending force can be applied. As regards the first, it is well-known that it does not prevent the reduction of larger bones, and even syncope does not facilitate the operation. The second depends upon the means employed, and cannot apply to those cases in which traction is carried to such an extent as to excoriate the integuments, or, as in the case mentioned by Bromfield, in which the thumb was completely

torn off by the surgeon's efforts at reduction. After noticing the various opinions in reference to the obstacles to be encountered, our author is unable to advance any which is perfectly satisfactory, although he is inclined, with Mr. Vidal, and Mr. Fergusson, to attribute it to the interlocking of the head of the metacarpal bone between the short muscles of the thumb. The different proceedings adopted in the reduction of this dislocation may be included under the following heads: extension, simple pressure, and pressure accompanied with flexion, forward and backward. Extension alone, M. Malgaigne regards the worst of all the methods. It has failed in the hands of Hey, Evans, Desault, Dupuytren, Boyer, Roux, I. Cloquet, M. Gensoul, M. Velpeau, and others. Simple pressure much more frequently succeeds, although this, too, has failed, even when tried by MM. Velpeau, Gerdy, and our author himself. The same observation applies to pressure united with flexion. And why, asks M. Malgaigne, have all of these methods failed? The true cause he fails to present to the reader.

If anything were needed to make the surgeon avoid the application of too much force in these cases, it might be found in the disastrous results reported by Bromfield, and, in another instance, related in the clinical lectures of Dupuytren, in which a patient, æt. 67, lost his life from the inflammation, suppuration, and mortification following too long and violent efforts at reduction. Exsection of the head of the bone, as practiced by Evans, he would restrict to those cases complicated with a rupture of the integuments. He barely alludes to the proposition of Sir Chas. Bell, to divide the lateral ligaments with a cataract knife, and remarks that, he once proposed to divide, at the same time with the ligaments, the muscles which formed the external margin of the button-hole opening which embraced the head of the bone. Time will not permit us to refer to all of the various methods proposed in the treatment of dislocations of the thumb. An excellent summary of them, is furnished by our author, and, in addition to the writers mentioned by him, we may allude to a paper in the *Revue Medico-Chirurgicale*, for April, 1855, written by M. Langenbeck, and communicated by M. Verhæghe, of Bruges. The method proposed by M. Langenbeck, after all, differs but little from that practiced by Roser, and which consisted in making dorsal flexion of the dislocated phalanx, and then depressing it upon the head of the metacarpal bone. This plan has been not unfrequently adopted by American surgeons. An excellent mode of applying the extending force is, by means of the clove-hitch, or sailor's knot. It has the advantage of not slipping, nor does it become tightened by the increase of the extension. It is

far superior to the plan recommended and delineated in Sir Astley Cooper's Treatise on Fractures and Dislocations.

Luxation of the Fingers.—Sir Astley Cooper observes that dislocation of the phalanges of the fingers is "but rare," and that, when it does occur, it more frequently happens between the first and second, than between the second and third. He has given an illustration of a case in which the second phalanx was thrown forward towards the thecæ, and the first backwards. In November, 1846, we saw a patient at University College Hospital, London, who had suffered for three months from a similar dislocation. Mr. Liston succeeded in reducing it by making traction with a key-handle. French surgeons, Mr. Liston remarks, deny the possibility of this accident. M. Malgaigne states that he has seen two cases of dislocation of the digital phalanges; that M. Leger has communicated another to him, and that, in all, he has been able to collect, six others—of the nine cases, three were in the ring finger; three, the little; one, the middle; one, the index; and in one, both the middle and ring finger were luxated.

Dislocation of the Hip.—After a critical examination of the terms employed by writers, from Hippocrates to Sir Astley Cooper, to describe the different forms of dislocation to which the femur is liable, M. Malgaigne presents us with his classification. The luxation backward, with him, is the iliac and ischiatic; forwards, the ilio-pubic and the ischio-pubic; upwards, the supra-cotyloidean; downward, sub-cotyloidean and sub-perineal. Of the sub-perineal variety he has collected but three cases; the first reported by D. Amblard, in 1821, the others by Professors Parker and Pope, of our own country, in the March number of this Journal, for 1852. About one hundred pages are devoted to the consideration of dislocations of the femur, traumatic, pathological, and congenital, and we know not where so complete a summary of the present state of our knowledge on this subject, can be found.

Our time will permit us to dwell but briefly on one of the more important points here discussed, viz.: the treatment of dislocations of the femur. Sir Astley Cooper insisted that the pulleys are indispensable in their reduction, yet the late Mr. Morgan, of Guy's Hospital, for more than twenty years before his death, was accustomed to accomplish this without resorting to these "indispensable" agents, and he maintained that they are quite unnecessary. When called to a recent case, he placed his heel between the thighs and made extension downwards. In many instances, he derived advantage from flexing the affected limb, with the knee bent on the body, and, at the same time,

making forcible flexible rotation. Mr. Birkett, the successor to the late Bransby B. Cooper, in the same institution, has published a communication in the London *Medical Times and Gazette*, for March, 1854, in which he states that he has succeeded, by Mr. Morgan's method, in reducing almost all forms of dislocation, and he asserts that the special rules laid down in books, as to the direction of the traction to be observed in each, have not been found of so much practical importance as they were supposed to be. Dr. Physick, as well as Dr. Nathan Smith, often succeeded in reducing dislocations, even of the femur, without the aid of pulleys, and it is recorded that Paulus Ægineta and Hippocrates met with similar success. Dr. John Watson has collected sufficient evidence upon this subject to show that this practice is by no means of modern origin (*N. Y. Medical Times*, June, 1853), and the same inference must be drawn from the pages of M. Malgaigne, yet there can be no doubt that the labors of Dr. Wm. W. Reid, of Rochester, N. Y., (*vid. Trans. Med. Soc., State of N. Y.*, 1852; or July number of this Journal,) have done more than those of any other surgeon, to establish the method of reducing dislocations of the femur without the aid of pulleys. Within a few weeks past, we have had occasion to avail ourselves of his suggestions, and in less than a minute we succeeded in reducing a femur which had been dislocated for nearly three weeks. We confess our inability to find the *analogue* of "Reid's method" in any of the various plans of treatment described by M. Malgaigne. We see by the journals that British surgeons have resorted to it with success, and we doubt not ere long it will be tried in France. When Roux made his famous voyage to London, in 1814, he claimed for French surgery the glory "d'avoir amené au plus haut degré, possible de simplicité les procédés de reduction" in dislocations; but sure we are that, now, "*sans trop d'orgeuil*," we may appropriate this glory to the surgery of our own country. But, as to the general "doctrine *des luxations*," by which, to use Roux's own definition (*Relation d'un Voyage*, &c., &c., p. 208), we are to understand the precise determination of the different luxations to which a joint is liable, the mechanism by which produced, the new relations formed by the parts displaced, and finally, the characteristic signs of each luxation, we have no hesitation in asserting that the great work of M. Malgaigne stands unrivaled.

We regret that the peculiar circumstances in which we have been placed, since we proposed to ourselves the task of analyzing this work, have rendered it impossible for us to do anything like justice to the subject. For years to come it must be *the* book of reference for every

practical surgeon, as well as of the student desirous of obtaining an accurate knowledge of the "doctrine" of luxations. G. C. B.

ART. VII.—*Annual Report of the City Inspector of the City of New York for the year* 1854. New York, 1855, 8vo. pp. 248.

THIS voluminous document has gradually attained its present size from a thin serial ten years since. Although, as the City Inspector says, the statute and ordinance by which he is "directed to report, annually, to the Common Council the business of his office, do not require so thorough and varied an elaboration of its proceedings; yet those enactments hardly had in view the great benefit to be derived from the collection of complete statistics. They aimed simply to the record of such general matters as pertained to the identification of deceased parties, and not to the progress of scientific research, the advancement and success of which so much depend upon the faithful collection and publication of every item of information having a bearing upon useful knowledge." The vital statistics of so large a city as New York, can scarcely be too highly valued. It is not our intention to thoroughly review the report, at this time; but to merely attempt to call attention to such parts as will best show its value. Every *city* physician will be able to peruse it, and we suppose that those out of it could obtain a copy, by offering a return, in kind, of the statistics of his own county. For the benefit of our readers, who are unacquainted with the business of the department, we will attempt to give some general idea of its records, which comprise many particulars of the births, marriages, and deaths, in a city numbering, by a complicated census, at least 625,000, together with the sanitary survey and registration of the condition of every house and lot. The records of the births and marriages are not perfect, on account of the failure of, perhaps, one half of those who should do so, to report; they are, however, valuable, as they give us, mostly, the correct proportion of sexes, colors, ages, and conditions. But the necrological record is as nearly complete as it is possible to have it, from the fact that every corpse must be interred, and that no burial can be made, and no human cadaver be removed from the city, without a permit from the City Inspector; which is given only upon a proper certification of the causes of death. The value of these records is also enhanced from the knowledge of the age, sex, color, condition, occupation, nativity, term of residence, etc., of each, given by the returns; and from these latter items the long series of tables, or a magazine of figures, as it is fitly called, has been compiled.

The argument frequently urged against conclusions from our mortuary statistics, of the fact that a large number of the signers of certificates are unprincipled, or careless, and ignorant of pathology, is frivolous and will not invalidate any general conclusions; but only the minor deductions which might be made from the small numbers of some comparatively rare diseases: the greater part, however, are drawn from the numbers dying from all the diseases of particular systems or classes; thus, although phthisis may be called chronic bronchitis, or bronchitis, croup, yet all will be correctly included under the order respiratory; in other words, the mistakes made by those giving certificates of death affect mostly the particular genera, not the orders or classes of disease; and as those of certain orders have mostly the same causes, the inferences will hence be generally correct.

Again, according to the report, as 4,352 died during the year, in the hospitals, or institutions, all of which have capable physicians, and as the number of deaths from disease was 25,325, almost one-fifth are thus proved accurate; to which, if we annex the coroner's certificates of disease, amounting to a few hundreds, and the large number given by dispensary physicians, a well-qualified body, who treat over one-third of the cases of sickness of the city, we can then aver, that about one-half are treated by competent physicians connected with the various eleemosynary and reformatory institutions; and in addition, we may form a reasonable estimate that four-fifths of all the other practitioners of medicine report correctly; thus the correct returns may be considered to embrace nine-tenths of the whole number, and the general grouping of the remaining tenth will not lead us far astray. Besides which, the known constant relation of our prevalent diseases to their returns, here and elsewhere, of death, as well as the general uniformity observed, even in reports of unscientific names, such as atrophy, debility, or marasmus, help to show that the greater part of the returns of death are made understandingly.

According to the report before us, the total number of deaths for 1854 was 28,568, of which 2,197 were either still-born, or died from malformation, or premature birth; and 1,043 from other causes than diseases, such as injuries, suicides, etc. The total number of males was 15,265, females 13,303, adults 10,682, children 17,886, of the African race 701.

The display of the different particulars of the above, as to diseases, ages, sexes, nativities, occupations, conditions, places of death, etc., occupies one hundred and eighty closely-printed octavo pages of figures, in addition to which the tables of births, marriages, and meteorology, for the year, embrace thirty-two more. The most interesting

tables in the report are, 1st, those showing the nativities of all the deceased; 2d, those of the mortality in each public institution in each month of the year, showing the numbers, sexes, ages, nativities, color, and reported diseases; 3d, those of the external causes of death, giving the month of occurrence, and all the various items mentioned above; 4th, statements of the monthly mortality, showing, in detail, the various causes, sexes, ages, nativities, and colors. Thus, in the month of March, the most fatal to phthisis, 297 deaths from it occurred, of which 165 were males, 132 females, 102 foreign males, 81 females; 6 colored males, 8 females, 57 native males, 42 females; and it also shows, on the same pages, how many were under 1 year of age, between 1 and 2, 2 and 5, 5 and 10, 10 and 15, and so on; 6th, annual recapitulation by classes and orders, the first relating to the causes of disease, and the second to functional invasion, exhibiting, also, under the head of each genus of disease, the numbers, sexes, nativities, colors, public institutions, adults, and children, with a summary representing the totals in the various classes and orders, both distinct and combined; 7th, ward mortality of the city, comparison of which, with the condition of the locality, will be found instructive; 8th, the diseases, occupations, and nativities of the male adults who died in 1854. (NOTE.—We would suggest, for another year, the addition of a table, having the same subject as the 6th, mentioned above; but showing the number of deaths in each class and order, in each month.)

The number dying in 1854 was nearly 26 per cent. more than in 1853; a large increase owing to the prevalence of epidemic cholera and its kindred diseases, which existed four or five months in several parts of the city. The first case, in May, was reported by a physician of the New York Dispensary; it occurred in a filthy locality in Cherry-street, and the second by another of the Eastern; this case was in a poor tenant house in Division-street. In comparing the reports of 1854, and of the year of the preceding terrible epidemic, 1849, we find that cholera had nearly the same proclivities and history in both as regards the localities in which it prevailed, and the class of its victims; but about 29 per cent. of its deaths being native in '49, and 23 per cent in '54. To quote from the report of '49, "the inhabitants of those sections where the disease mostly prevailed were among the most miserably poor and destitute, and we know that its victims were the indigent, who previously existed in a state of semi-starvation, rags, and want;" in the language of Shakspeare, those

> "Whose houseless heads and unfed sides
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> "Whose houseless heads and unfed sides
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In view of the above, it is gratifying to know that true benevolence could mostly prevent the ravages of this disease.

The proportion of deaths to population in 1840 was about two and a half per cent.; in 1845, two and two thirds; in 1849, four and one third; and in 1854, four and a half per cent., showing a steady increase and a larger ratio of mortality than most other cities: both are well-accounted for, by the prevalence of cholera, and the greater influx of immigration to this port. The total number from Europe, seeking new homes in the United States, by way of this city, in the six years ending with 1846, was 337,780; but the most astonishing increase, and one unparalleled in the annals of any country, began in 1847, since which time, eight years, the immigration has overrun two millions.

The excess of male and infant mortality is shown, by a table, to have been regular for many years; that subjoined is a summary of it.

Excess of mortality of	1849	1850	1853	1854	last 8 y'rs
male over female	1157	1338	1758	1962	6215
" " adult " " do.	117	317	822	810	2066
" " children " " do.	1040	1021	936	1152	4149
" " " adults.	1915	4156	6454	7204	19729

This table also shows, that in the seasons of a severe epidemic, like cholera in '49 and '54, the disproportion of deaths between the sexes, and adults and children, is reduced; and we may, also, infer from it, that our climate, at other times, is peculiarly unfavorable to infant life.

The Report says that the "greater exposure of male adults is usually assigned as a reason for their excess of deaths; but that of male children has not yet received a solution that is deemed satisfactory." It might be added, however, that it can be proved that the greater number of males born of the human race, as well as their greater exposure to accidents; and the causes of disease, deducting the still-born, of which there are more males than females, on account of their superior size, fully accounts for this excess; thus, for example, the proportionate excess of male children, born in 1853 and '54, was over eight per cent., and the same proportion of drowned male children was about ninety per cent.

The excess of deaths of male children, from external causes, was 400 (see table); the excess of deaths of male children from disease alone was 752, and, according to the ratio of excess of male births, the natural excess of male deaths from the same causes of disease should have been 592. This argument is conclusive; indeed, it seems to prove too much, and we may be compelled to admit that the general causes of disease affect female children more severely, than the other sex.

Continuing the same train of reasoning, we find that the number of deaths of boys, from diseases produced more by out-door than in-door exposure to their causes, such as inflammations, etc., was 4,100; girls from the same causes, 3,380, boys' excess 720; same etc. from causes operating more in-door, such as fevers, etc., boys 648; girls 740; girls' excess here 90; excess of boys' deaths from all these causes 630. 6,526 children died from other causes of disease, supposed to act as much within as without dwellings; the excess of male deaths amongst these, at the ratio of male births, should be 250, whereas, it was but 126.

Pertussis seems to have been more fatal to girls than boys, of these 150 died, and of those 189. Some other causes, also, departing from the general rule, seem to aim the most fatal shafts at one sex in the morning of life, and during and past its meridian, at the other. See table.

	Boys.	Girls.	Men.	Women.
Gastritis	19	14	24	45
Enteritis	112	82	73	98
Marasmus	871	754	41	42
Convulsions . . .	1137	993	23	30

And one large order, the digestive in the class of sporadic diseases, shows the same anomaly.

Boys.	Girls.	Men.	Women.
1243	1089	432	468

The most fatally visited months of the past year were the same as in the seven, and probably most previous years, viz.: July and August; the excessive heat of those months will always account for it, however. September was the next most fatal in 1852, '53 and '54. Comparison of the weather and mortality, for the previous nine years, shows that when September was unusually cool, December was the third month in fatality, and when of a mean high temperature, it was then the third, and December the fourth in order.

The healthiest months, as we gather from reports of eight years, both by comparison of the mortality and of the meteorological registers, were the vernal and autumnal, viz.: the latter half of April, May, earlier half of June, latter half of September, and the whole of October, or, in other words, the latter part of our so-called spring months, and the middle of the autumn, are the seasons of the year when there are the fewest diseases caused by extremes of heat or cold, or of dryness or moisture, either in or out of doors; the most fatal months are July, August, and September, the extreme heat, and the excessive moisture in basements, and ill-ventilated apartments, then, always act as direct causes of disease. The winter months, November, December, January

February, and March, are the next as regards fatality, owing to the extreme cold out of doors, and the dryness in doors. The table appended is an approximation towards showing the monthly average of the three seasons mentioned above; it is proper to note that the mortality of November is usually disproportionately small, because of the previous hot months having decimated the ranks of the infant and debilitated population. Summer season, average per month (with cholera deducted) 2084, or about ten and one-fourth per cent.; Winter 1552, or seven and three-fourths per cent.; Vernal or Autumnal 1486, or seven and three-eights per cent.; the mean monthly mortality for nine years has been 1677.

We are informed, page 207, "that in an aggregate mortality, during the past eight years of 167,353, that of the children exceeds the adults 32,413, or about forty-eight per cent. The annual average of adults is 8,434; of children 12,485." (NOTE.—It is proper to state that twenty is the dividing line between children and adults.) The disproportion between infant and adult mortality has been increasing for several years, and is well calculated to excite the alarm of some; can we refer such a hecatomb of human offspring to natural causes! Shall we dare to say how much, want, crime, or malpractice are chargeable with. One important element must always be considered in attempting to account for this increase, viz.: the flood of immigration for many years, which has left its worst detritus to refill our filthiest localities with a prolific population, more ignorant and vicious than their predecessors; at the same time a large portion of our most healthy children have been removed to the adjacent cities and counties. It is well-known that with the light of advancing medical science, many more children of the classes who live neatly and comfortably, grow up to view the sun of puberty. This excess of infant mortality is not as great in the fifteenth, and other wards occupied by the wealthier classes of society. The offspring of those in this country but two or three years, can hardly be considered acclimated, and we know that more than two thirds of the infant names are either of the languages of Continental Europe or of Ireland.

By a review of the reports for the past eight years, we are enabled to give the per centage of deaths to ages. Under one year, thirty-three per cent.; from one to two years, thirteen per cent.; from two to five, ten per cent.; five to ten, four per cent.; ten to fifteen, one and a half per cent.; fifteen to twenty, two and a half per cent.; children under twenty, sixty-four per cent.; from twenty to thirty, ten per cent.; thirty to forty, nine and a half per cent.; forty to fifty, six and a

half per cent.; fifty to sixty, four and one-fourth per cent.; sixty to seventy, three per cent.; seventy and upward, one and three-fourths per cent.

We shall merely glance at the remaining tables in order to call attention to their most interesting features. The tenth shows the particulars of the diseases of 1854, arranged scientifically into classes, orders, and genera, as in natural history; the two classes are, 1st, zymotic; 2nd, sporadic; and the different genera of diseases are assigned to the various orders in each class, according to functional affection; thus, pleurisy may be found in class two, order five, (respiratory.) Of the first class, which includes diseases, mostly contagious and endemic, or epidemic, there were 10,100 deaths, about thirty-five and three-eighths per cent.; in the previous year of cholera (1849) about forty-four and one-fourth per cent.; in the previous year of typhus (1847) about thirty per cent; in the healthy years 1848, '50, '51, '52, and '53, only twenty-five and a half per cent.

Therefore, the public health may be considered the best, when and where the zymotic diseases prevail the least.

The meteorological register, which has been embodied in this report for eight years, contains, this year, a new feature, the hygrometrical element. The table showing the diseases, etc., in each public institution, is very valuable; amongst other desiderata, it acquaints us, at a glance, with the knowledge of the class of patients treated in each.

The feature of the report, destined to be the most valuable, in our opinion, is the table of diseases and occupations, which we may hereafter review, when the official census of the trades, etc., can be obtained.

We trust that enough has been said to induce the profession to study the report; the few grammatical or typographical errors will not mar any deductions; and we conclude with the hope that all physicians will hereafter, for their own good, for the perfecting of the statistics of this department of city affairs, in which we all should take pride, and for the benefit of medical science, unite in reporting all the births with punctuality, as well as every other item sought for in publications of this kind.

J. P. L.

BIBLIOGRAPHICAL NOTICES.

ART. VIII.—*History of the American Medical Association, from its Organization, up to January*, 1855. By N. S. DAVIS, M.D., Professor of Principles and Practice of Medicine and Clinical Medicine, in Rush Medical College, etc., etc. To which is appended Biographical Notices, with Portraits of the Presidents of the Association, and of the Author. Edited by S. W. BUTLER, M.D. Philadelphia: Lippencott, Grambo & Co., 1855, 8vo., pp. 191.

SELDOM has it been our pleasure to examine an American publication so well adapted for the purpose of a "Medical Annual" as the one whose title heads this notice. The intrinsic merit of the subject matter, and the general truthfulness of the compilation, will, of a certainty, attract, towards the publication, a goodly number of readers. On the bearings of the special principles, as well as means of *medical reform* therein advocated, there is, of necessity, a wide difference of opinion in the professional mind. Any attempt to adjust this difference, when presented in the light of calm inquiry, should command the attention of every one who claims respect for medical improvement.

In the perusal of this interesting volume, several blemishes of orthography and of historical facts have struck us as of doubtful accuracy. That recorded on p. 20, in the following language, may be cited as one: "The first movement, of which we have any record, which contemplated a convention of delegates, not only from all the medical colleges, but, also, from the regularly organized medical societies throughout the whole county, was made in the Medical Society of the State of New York, at its annual session, in February, 1839." As a matter of history, the following fact is on record: The official report of the *Proceedings of the New Hampshire Medical Society*, at its forty-seventh anniversary meeting, held in Concord, N. H., on the 5th and 6th of June, 1838, is published in the *Boston Medical and Surgical Journal* (for Aug. 15th, 1838), vol. 19, p. 30. Among other matters, that report states: "That the subject of a National Medical Convention was taken up, and, after some discussion, was referred to a select committee. The committee reported favorably, and, thereupon, the Society voted to recommend an Annual National Convention, to consist of delegates from the various medical schools and societies in the Union; that the first convention be proposed to be holden A.D. 1840, and that the Secretary send a notice of this vote to the *Boston Medical*

and Surgical Journal, and to the *American Journal of Medical Sciences.*"

The typographical beauty of the work, and the artistic finish of the illustrations, enhances greatly its attractions, and we hesitate not to say that our impressions will not be realized if the volume before us does not receive, at the hands of the profession, an amount of patronage sufficient to compensate authors and publishers for the labor bestowed upon its production.

ART. IX.—*The Pathology and Treatment of Leucorrhœa.* By W. TYLER SMITH, M.D., Lecturer on Midwifery, etc. Philadelphia: Blanchard & Lea, 1855, pp. 199.

A Practical Treatise on the Diseases Peculiar to Women, Illustrated by Cases derived from Hospital and Private Practice. By SAMUEL ASHWELL, M.D., Obstetric Physician to Guy's Hospital, etc. Third American, from the third and Revised London Edition. Philadelphia: Blanchard & Lea, 1855, pp. 528.

THE outline of Dr. Smith's work appeared in the *Medico-Chirurgical Transactions* (vol. xxxv). The novelty and apparent accuracy of the investigations, and the important bearing which they had upon the knowledge and treatment of leucorrhœal diseases, attracted very great attention. In the present volume we have these investigations reproduced and greatly extended, with deductions of great practical interest. The following heads of chapters will give a general idea of the subjects discussed:—Minute Anatomy of the Vagina, Os, and Cervix Uteri; Glandular Structures of Canal and Cervix Uteri; Secretions of Vagina, Os, and Cervix and Cervical Canal of Uterus in Health; Leucorrhœa in its different forms, its Sequelæ, its relations to Secondary Syphilis, to Gonorrhœa, to Disordered Menstruation, to Sterility and Abortion, its Constitutional and Local Causes and Treatment. As this interesting monograph is now placed within the reach of every American practitioner, we need not allude to it further than recommend it to their notice, as one of the most important and original medical publications that has recently appeared.

The work of Dr. Ashwell is a new and revised edition of his standard work on the diseases of females. It has always been a popular work with the profession of this country, and the value of the present edition has been greatly enhanced by the careful revision of its author.

ART. X.—*The Diseases of the Heart and Aorta.* By WILLIAM STOKES, Regius Professor of Physic, in the University of Dublin, etc. Philadelphia: Lindsay & Blakiston, 1855, pp. 710.

THIS volume, containing the experience, investigations, and deductions of one of the most eminent practitioners of the age, is now brought, by republication, within the reach of the American physician. No work has met with more general and deserved approbation at home and abroad than this elaborate treatise. The profession naturally looked to Dr. Stokes for the most complete work on this subject, and we venture to say that few are disappointed. We most cordially recommend this volume to the practitioner, as one which he will find indispensable to a correct understanding of the diseases of the heart.

ART. XI.—*The Mineral and Thermal Springs of the United States and Canada.* By JOHN BELL, M.D., Author of "Baths and Mineral Waters," etc., etc. Philadelphia: Parry and McMillan, 1855, 12mo, pp. 394.

To the valetudinarian, and likewise to the traveler in the pursuit of pleasure, this little volume will prove both useful and instructive. It fills a hiatus long since felt to exist in the literature of the day. The work contains notices, more or less complete, of one hundred and thirty springs and groups of springs in the United States. We are pleased to see that, in a professional point of view, it may be regarded as an earnest of the author's intentions, or as an installment of his larger work, in which the scientific history of springs will be fully set forth.

PART THIRD.

FOREIGN MEDICAL RETROSPECT.

SURGERY.

On Circular Cauterization of the Base of Hemorrhoidal Tumors complicated with Prolapse of the Mucous Membrane of the Rectum. By Dr. ALPHONSE AMUSSAT, Jun.

[*Concluded from Page* 288.]

IN order to give a still more complete and exact idea of the affection to which I have endeavored to call the attention of the profession, I have added the annexed drawing, taken from nature, of hemorrhoidal tumors, with prolapse of the mucous membrane of the rectum, on which I shall shortly operate by the process I have described. The patient is in the habit of supporting these tumors with a spring bandage, furnished with a ball of gum elastic. The constant pressure of the ball upon the anus has produced a dilatation of the sphincter, which allows the tumors to come down when they are not supported.*

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* We have, however, seen many cases of hemorrhoidal tumors, and of prolapse of the mucous membrane of the rectum, in which the greatest benefit has been derived from the support given by an anal truss, manufactured by Mr. Duff, of Molesworth-street, in this city. This instrument consists of a steel spring, well padded and covered with leather, passing round the hips, and furnished in the part which rests on the sacrum with a little cushion. To its centre posteriorly is screwed a steel plate, perforated with three or four holes over one another for the admission of the screw; attached to this plate, by a joint admitting of lateral flexion, is a rod of steel, also covered with leather, descending vertically, and terminating in a rounded cone of ebony, and so curved that the latter shall rest against the anus. The length to which this rod descends can be increased or diminished by screwing the plate of steel, above mentioned, at one or other of the holes, to the horizontal spring. As an illustration of the effect of this instrument, we may mention the case of a medical man, then aged 38, who had for five or six years suffered from a gradually increasing prolapse of the mucous membrane of the rectum which had in the commencement of 1851 attained such a hight that he was unable to walk more than a quarter of a mile without the membrane protruding and becoming painfully strangulated. This was attended with a copious discharge of mucus, which rendered his state uncomfortable in the extreme. Almost every action of the bowels was accompanied by copious hemorrhage. A loss of both red, and what Sir Henry Marsh has so well termed white, blood was thus taking place, which must soon have undermined his health. An eminent surgeon gave his opinion that operation was indispensable. A truss was, however, procured, and, having been properly adjusted, was worn with the effect of wholly preventing the occurrence of the prolapse. As a consequence, the discharge of mucus and the hemorrhages have altogether ceased, and all annoyance has been entirely removed. The tendency

I might easily have brought forward a greater number of facts, but those I have recounted will suffice, I think, to prove the simplicity and the safety of the operation I have described. I may add, that MM. Hippolyte Larrey, Martin (Saint Ange), of Paris; Dr. Mascarel, of

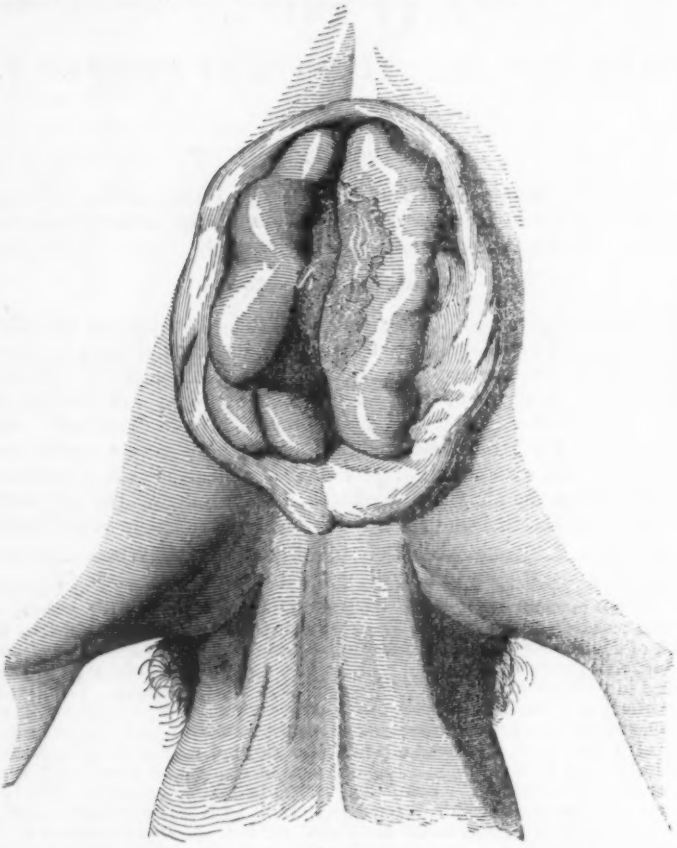

Fig. 8.

of the use of the instrument is, moreover, by preventing the descent of the parts, to promote their contraction, and thus, if the bowels can be duly regulated without the irritating effects of medicine, to lead to a real cure. It is better to use the instrument only at such times as the patient is likely to be actively engaged. Due attention should, of course, at the same time, be paid to the avoidance of much standing, sitting on hard seats, straining at stool, or lengthened attempts at defecation. We have never seen the dilatation of the sphincter above alluded to produced by the use of this instrument, and we think it will be found that there are few cases of hemorrhoidal tumors, or of prolapse of the rectum, in which the necessity for operation may not be indefinitely postponed by it, and where, under favorable circumstances, even a cure may not eventually be reasonably looked for.—TRANS.]

Châtellerault; MM. Maher, J. Roux, Laurencin, Professors in the Schools of the Imperial Marine, have kindly communicated cases of patients successfully operated on according to my plan. Lastly, MM. Barthélemy and Jobert,* who formerly gave an exclusive preference to the actual cautery, have now abandoned it, and employ, instead, the caustic potash with lime. As the details I have given in describing my operation appear to me sufficient to enable the reader fully to understand its several stages, and with ease to put them in practice, I shall not return to that part of my subject; but I think it useful to dwell for a little on its sequelæ, and the consequences which may result from it, for the rule of conduct I have adopted is the result of an experience based on the numerous facts I have observed during more than ten years.

The two or three minutes which I judge necessary for the cauterization having elapsed, the forceps is removed, care being taken that the caustic it contains shall not touch the neighboring parts, and the injection of cold water, which has not been interrupted during the operation, is continued. The jets of liquid should be directed chiefly to the linear depressions formed by the instrument, in which the caustic is situated, in order to remove particles which may not have chemically combined with the tissues. It is at this time especially that the patient feels the cauterization, which is no longer masked by the pressure of the forceps, and the cold fluid pouring on the tissues has, in addition to the effect just mentioned, that of acting as a local anæsthetic. When the parts have been washed sufficiently to have removed all the caustic, the tumors are carefully smeared with olive oil, and returned into the rectum. The oil both serves to facilitate the reduction, and, to a certain degree, protects the tissues by combining chemically with the alkalies, should any still remain.

Small quantities of cold water are also thrown into the rectum, and allay the pain, and afterwards the patient is placed in a cold sitz-bath, or, better, in a full-sized bath, at an agreeable temperature, which will, of course, vary according to the time of the year. In this he generally

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* M. Jobert de Lamballe has recently published a new mode of cauterizing hemorrhoidal tumors *en masse* by means of caustic potash with lime. This surgeon seizes the tumors with a double arch of silver, which forms a sort of capsule, and covers them with Vienna paste, which he leaves applied for some minutes. The only patient on whom this operation has been performed had hemorrhoids of ordinary size, and two successive applications of the paste were necessary to destroy them. This mode of operation cannot be compared with the circular cauterization of the base of the hemorrhoids I have described. By my proceeding, in fact, the caustic is applied on a surface of but very limited extent, and the pressure of the forceps, combined with the continual irrigation with cold water, so moderates the pain of the operation that it is only exceptionally I have recourse to anæsthetic agents. Moreover, the pain which follows the operation is much less than in M. Jobert's proceeding, the cauterized surface being less extensive. His plan can only be compared with the mode I formerly pursued with a stick of Filhos' caustic. The latter proceeding possesses the advantage of not requiring a special instrument, and besides, the solid caustic acting more quickly than the paste, the operation lasts a shorter time, and I have never been obliged to repeat the application.

remains about an hour, being guided, in this respect, by his own sensations.

Generally speaking, on coming out of the bath, the pain, which has gradually diminished, is very slight; occasionally, however, in very nervous persons, or when the caustic has not been completely removed from the tissues, it is still severe. In this case we advise the patients to return to bed, and to place themselves in a position similar to that they observed during the operation, while a continued douche of water, which in winter should be tepid, in summer cold, is directed against the anal region. I have known some to find it more convenient to substitute for the douche, continued applications of lint dipped in cold, sometimes even iced water, and very frequently renewed. This latter means, though undoubtedly efficacious, should be employed with care, so as to avoid the reaction which is apt to set in when it is suspended or left off. Other patients remain all day in the sitz-bath, the temperature being kept up by the addition, from time to time, of warm water. I once attended, with my father and Dr. Pouget, a person who, after the cauterization of two tumors, remained in a sitz-bath almost constantly for a week; he said he was very well in it, and not the slightest bad effect resulted from this protracted use of it.

Most frequently two or three sitz-baths during the day, small continued douches, with poultices on the anal region, in the intervals, constitute the local treatment.

This plan should be persevered in until the wound is almost completely cicatrized, especially if the least sign of inflammation should be observed.

The only nourishment I allow is strong beef tea, and I recommend the patient to keep his bed for two reasons: first, because, by so doing, he bears the restricted diet better; and secondly, because the bowels are then less liable to act. Those who will not submit to this plan are obliged at once to take a more substantial diet, the result of which is stools, which are more painful in proportion as they occur nearer the time of the separation of the eschar.

Frequently a dysuria comes on, which lasts some hours, and subsides spontaneously, for I do not remember having had recourse to catheterism in a single instance. There is generally swelling, sometimes partial, sometimes general, of the areolar tissue about the anus. The patients complain of it a little, and generally think it is the hemorrhoids which have come down. I employ only the local means I have mentioned, and if the patients are very irritable, I have the poultices sprinkled with a little oil and laudanum. I sometimes give on the first night a composing draught with syrup of poppies. The state of the patients is generally so satisfactory on the following days, that they complain only of the diet and rest which are imposed upon them.

At the end of three, four, six, eight, or twelve days, portions of sloughs will be seen on the poultices, indicating that the mortified tumors are thrown off, of which the characteristic odor they diffuse likewise gives notice. The broth diet is continued as long as the patient does not complain too much of it, and in this way the work of elimination and reparation goes on very well, as there is nothing to

interfere with it. I endeavor to postpone the first motion as long as possible, without, however, annoying the patient too much. When he feels a repeated desire to go to stool, which generally occurs at the end of six or eight days, I direct two or three ounces of lard melted in a water-bath, or a lavement of decoction of marsh-mallow, to be thrown into the rectum. The introduction of the tube should be managed with the greatest care, so as not to irritate or injure the wound. This duty should be intrusted to an assistant or an intelligent nurse.

The first stool is always rather painful, and the patient passes a few drops of blood; in two of my patients two or three ounces were lost without any bad effect except some increase of weakness, which I met by improving the diet. If the exclusive use of beef tea does not become too repugnant to the patient, which generally takes place, I induce him to continue it for some days, being guided by the time at which the eschars fall off and the probable state of the suppurating surface, the extremity of which can generally be seen at the anal orifice. It is unnecessary to observe, that I discontinue the baths as soon as the pain about the anus has ceased, as they would, along with the restricted diet, lower the patient too much. My object in continuing the exclusive use of the broth is to postpone the second motion, and to render it as small as possible. If, however, this diet does not sufficiently support the strength, or if disgust comes on, I substitute fresh eggs, gravy, and a little bread or pastry, gradually increasing their quantity. The second stool usually takes place from the twelfth to the fifteenth day, and ought to be preceded by the precautions I have detailed in reference to the first. The patient now begins to resume his ordinary mode of life; a great many go out, and some return to their occupations, taking care, however, to use an occasional sitz-bath, to foment the anus with tepid water several times a day, and particularly after having been at stool.

Such are the phenomena I have observed, and the measures I advise, after the circular cauterization of the base of hemorrhoidal tumors, whether simple, or complicated with prolapse of the neighboring rectal mucous membrane; and from what I have stated, it will easily be inferred that not only have I never lost a patient in consequence of the operation, but I have never had reason to be uneasy about my patients. I may add, that in no case have I observed the slightest symptom of pyemia to arise.

It would, perhaps, now be well to compare this new mode of treatment with those in ordinary use—the ligature and excision: but to draw this parallel would lead me beyond the limits of the present essay; it may suffice to remark, that I have never observed the nervous or phlebitic attacks to result from the new plan which have been attributed to the ligature, nor have I ever witnessed the hæmorrhages and purulent absorptions to which excision occasionally gives rise. In a future essay I shall examine, comparatively, the other modes of cauterization employed in the treatment of hæmorrhoidal affections.

It will, no doubt, have been remarked, that the five cases I have quoted are those of patients advanced in life; the remaining facts which have come under my observation confirm the opinion generally

received in reference to this affection, namely, that it is more common in those who have passed forty years than in younger persons. It may be fairly asked if it is advisable to cauterize hæmorrhoidal tumors in old people, and especially when, being of long standing, they have become habitual and constitutional. As I have already said, I never take away all the tumors, confining the operation to those which give most annoyance; and although it has been objected that, in acting thus, we do not completely remove the affection, and that the tumors which are left may subsequently be developed and oblige the patient to undergo the operation anew, still, as this reproduction has hitherto been very rare, and as my plan has always been attended with fortunate results, I think it right to persevere in the same line of conduct. In a word, I am of opinion that we ought only to remove the tumors which are really prejudicial to health.

Among the advantages which result from the operation I shall point out, first, the cessation of that constant and great irritation caused by the protrusion and perpetual friction of the tumors against one another. This friction quickly removes the epithelium from the surfaces which are in contact; the patients feel an incessant smarting, which enervates them; a weakening, muco-purulent discharge is set up at a period of life when losses suffered by the system are repaired but slowly and with difficulty. Moreover, the sufferers are debarred from the little exercise their lower limbs would still allow them, by the fear of its producing an aggravation of their state. It is rarely, too, that the phenomena of digestion are not more or less disturbed; the advantages to be derived from terminating such a state of things will be at once apparent.

Double care should, however, be taken after the operation to guard against metastatic engorgement of the organs of respiration or of the liver; of such the physician should be particularly watchful, especially at first. I may add, that spring should, if possible, be chosen for the performance of these operations, so as to have the fine season for the period of transition.

It was my original intention to have closed my essay here, having, I think, sufficiently demonstrated the proposition I had advanced; but on reviewing the various cases of voluminous and complicated hemorrhoidal tumors I had observed, and reflecting on the comparisons which might be established between the affection I have been speaking of, and prolapse of the mucous membrane of the rectum, whether simple or complicated with hemorrhoidal tumors, that is to say, on the cases in which the complication becomes, by its development, the principal affection, as well as on the difficulties which sometimes exist in clearly diagnosing between these two pathological states; I asked myself if an operation which succeeds so completely in one case might not be applicable to the other The study of the etiology and ordinary progress of prolapse of the mucous membrane of the rectum shows that, most frequently commencing as a complication of the hæmorrhoidal affection, it may at length become the prominent ailment, in consequence of its development and of the derangements it produces; and it is often true

that, while the vascular element little exceeds its ordinary limits, the prolapse alone attracts the entire attention of the surgeon.

Is not, in both cases, cauterization with a porte-caustique forceps applicable to the mucous tumor protruding from the anus, and may it not be regarded as the logical corollary of the treatment we employ in the cure of hæmorrhoids?

Ligature, excision, and cauterization, have been already employed in the treatment of prolapse of the mucous membrane of the rectum. As in hæmorrhoids, ligature has given rise to fatal nervous symptoms, excision to severe hæmorrhages; accordingly, these two methods appear to have been abandoned in both cases.

The actual cautery employed by the ancients, especially advocated by Marcus Aurelius Severinus, and described by Sabatier, who proposed to trace burnt lines upon the tumor, by means of an iron wire brought to a white heat, has been successfully practiced by Dr. Kluiskens of Ghent, and by several French surgeons.

It appears to me, however, that this process, which I believe to be preferable to the former two, may with advantage be replaced by the use of caustics.

We find in the records of science instances of complete gangrene of the prolapsed part, caused by strangulation produced by the sphincter, with cure. It would, therefore, at once occur to us to seize the base of the prolapse with a strong porte-caustique forceps, so as to induce immediate mortification, as in the case of hæmorrhoids, in imitation of what is sometimes done by nature. By acting thus we should probably do more than is necessary, and expose ourselves to the risk of causing a subsequent contraction of the anal orifice.

I think it would be sufficient and preferable, in such a case, to follow the plan I adopt with voluminous hæmorrhoidal tumors, namely, to destroy, by the same process of cauterization, the half or two-thirds of the mucous tumor, so as not to have a continuous linear cicatrix.

Such were the deductions I thought might strictly be drawn from the facts I have quoted, when, on the 25th of last August, M.X., a physician in the environs of Blois, who was acquainted with the former part of this essay, came to consult me about his wife, whose case I subjoin, and who was affected with a prolapse of the mucous membrane of the rectum. This very interesting case gives to the proposition I have announced the sanction of an experience, recent indeed, but which I hope to establish in a positive manner when time and facts shall have enabled me to make in it such modifications as may hereafter appear to be necessary.

[The case alluded to was one of voluminous prolapse of the mucous membrane of the lower extremity of the rectum, treated by cauterizing the two lateral portions of the tumor with a T-shaped forceps armed with Filhos' caustic; and resulting in cure. The patient, Madame X., aged 63, had always suffered from obstinate constipation; in her youth she was often, when she had not recourse to lavements, ten, twelve, and sometimes fifteen days without a motion. She had also long and alarming fainting fits at the times when the bowels felt as if

about to act, and she made violent and prolonged efforts to expel the fæcal matters.

At the age of 54 the patient perceived that the mucous membrane of the rectum protruded externally, but this was not constant, taking place only at intervals of two, three, or four months, and continuing for not more than three or four days at a time. It was preceded by a feeling of general uneasiness, headache, and a sensation of weight and heat in the rectum, and was followed by a tolerably abundant hæmorrhage at stool, when all returned to its normal state.

Two years later, without the hæmorrhage being more frequent, the prolapse, from having been intermittent, became constant when the patient was up, and exhibited itself from the beginning under the form of four non-pediculated tumors, one superior, one inferior or perineal, and two lateral; the superior and inferior being smaller than the two lateral ones. This prolapse became, in time, more voluminous and more inconvenient, in consequence of the feeling of weight and dragging it occasioned in the uterus and its appendages. The patient, being no longer able to walk a step without putting her hand behind to raise the tumor, except during some hours after rising, when she had the evening before taken lavements, decided on submitting to a surgical operation.]

The accompanying drawing, taken a little before the operation, gives an accurate idea of her malady. It will be seen that there existed an undefined, unfurrowed, rosaceous, mucous tumor, as in the hæmorrhoidal affection, rendering it impossible for any one to be for a moment deceived as to the nature of the ailment.

A lavement having been administered, and efforts at defecation having been made, an examination was instituted. On exploring the vagina with the index finger, I ascertained that the cervix uteri was united posteriorly by a cicatrix such as my father obtains by cauterization in cases of retroversion and retroflexion. Bearing in mind the analogy existing between this affection and that which is the subject of this essay, I proposed to cauterize a portion of the mucous tumor, as if we had to do with voluminous hæmorrhoidal swellings. To this M. X. agreed.

On the 29th August, Madame X. having in succession taken and passed two lavements, using as violent efforts as possible, was placed on a bed furnished with a folded sheet and oilcloth, and in the position usually adopted in operating for hæmorrhoids.

The anus then presented the appearance represented in the figure; considering the lateral portions A A as two large hæmorrhoidal tumors I seized each at its base with a strong T-shaped porte-caustique forceps with protecting plates, and when I had placed the instruments as high as possible, I uncovered the caustic, and strongly tightened the two screws. But as the fissures between the four portions of the tumor were very shallow, I was obliged to add to one of the extremities of each forceps a forceps with porte-caustique rods, charged with paste of potash with lime, so as to make, artificially, furrows which did not already exist.

Everything having been thus arranged, I caused a current of iced

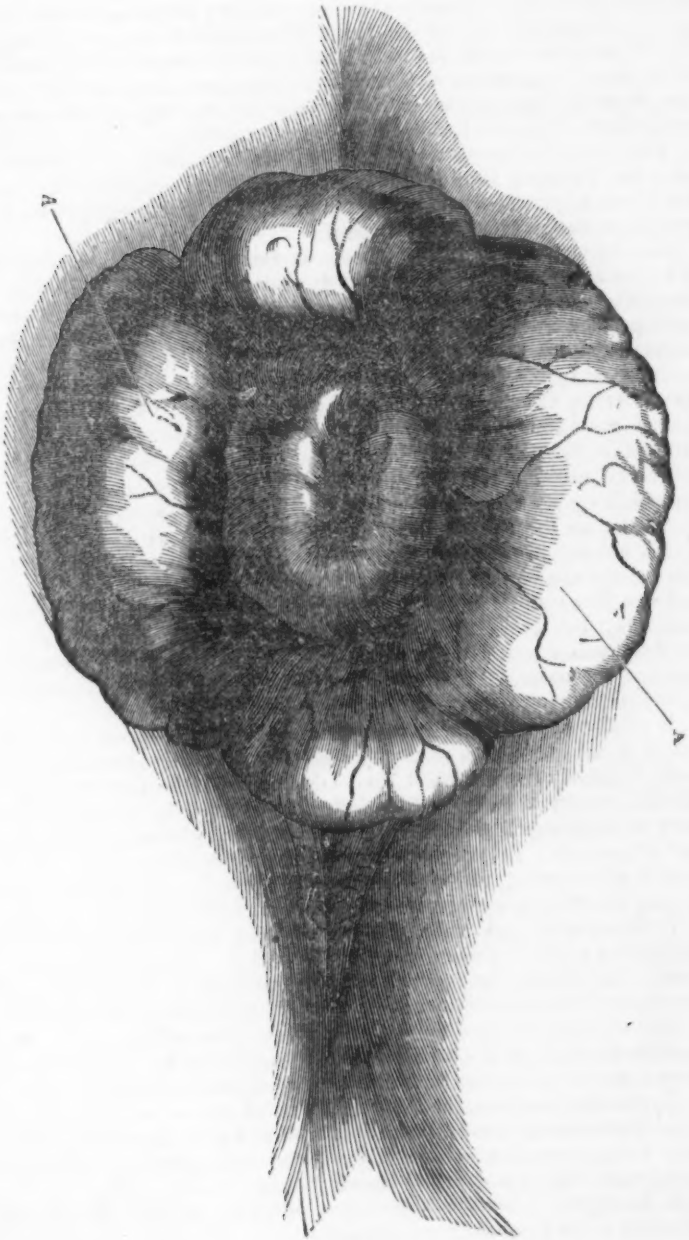

Fig. 9.

water to be thrown on the anal region with two large Eguisier's irrigators, during the ten minutes that the instruments remained applied. Under the influence of the very strong pressure exercised by the forceps, and of the current of iced water, the patient, a very nervous person, bore the operation so well, that she did not require the use of chloroform, which we had before agreed to exhibit.

The operation being over, I removed successively the small forceps, then the T-shaped forceps, and continued the douches of iced water for about a quarter of an hour, taking care to direct the jet on the points where the caustic had touched.

Having smeared the entire mucous surface with olive oil, I returned it by means of a regular taxis, and the patient was placed in a cool sitz-bath, a compress of linen having been fixed on the anal region so as to prevent the protrusion of the mucous tumor. The pain she had experienced, after the operation, was allayed, and soon became very tolerable. In the evening there was a little fever and complete retention of urine, which rendered catheterism necessary. The retention continued until the 2nd of September, when it ceased. On the 1st of September the patient voided per annum a blackish liquid; this kind of discharge continued for some days. On the 6th, a long portion of mortified areolar tissue was passed. On the 30th, a month after the operation, an examination was made; nothing was visible externally, and it was stated that no protrusion took place at stool. On the following day the patient returned to the country.

Since that time Madame X. has often had motions with scarcely any suffering; but being always constipated, she has frequently passed hard matters covered at first with a little blood, then with purulent matter; moreover, she takes walking exercise without the occurrence of the slightest prolapse.

It will be observed, in perusing the foregoing statement, that I followed in this case, both in the operation and in the subsequent treatment, precisely the method I have laid down for the cure of hæmorrhoidal tumors, namely, the cauterization of a portion of the mucous mass with forceps furnished with grooves filled with a caustic paste, and afterwards a strict diet, with the view of avoiding motions, particularly after the operation; accordingly, the consequences have been as simple and as favorable as in the affection I have just mentioned.

Prolapse might, no doubt, be treated with direct cauterization by means of a stick of Filhos' caustic; but this proceeding, though more simple, and not requiring a special instrument, would be more painful for want of the compression, and the continued injection of cold water.

Hitherto the result of the operation has been as satisfactory as could be wished, and it will continue so, if I may judge by the results we have obtained in the treatment of the largest hæmorrhoidal tumors.

To recapitulate from the foregoing, I think we may conclude:—

1. That the circular cauterization, such as I have described, enables us to cure hæmorrhoidal tumors, and the prolapse of the rectal mucous membrane which accompanies them.

2. That this operation has always been, in my hands, perfectly harmless in its immediate consequences.

3. That the health of hæmorrhoidal patients operated on after my mode has eventually improved, contrary to the generally received opinion.

4. That by circular cauterization we may also obtain the cure of prolapse of the mucous membrane of the rectum.—*Bulletin de Thérapeutique*, vols. 44 and 45.

Some Account of the Wounded in the Recent Bombardment of Sevastopol. By D. J. Dunigan, Esq., Surgeon, etc.—It may not be irrelevant to the subject, to give a short summary of the military position. The French occupy both flanks; the English are in the centre, their works being divided into the Right and Left Attacks (Chapman's and Gordon's batteries). The Right Attack fought the Mamelon, left flanks of Malakhoff, and Redan, and also some smaller works continuous with them. The Left Attack opposed the right flank of the works around the Malakhoff Tower, right flank of Redan, the Barrack, Garden, 4-Gun, and Flagstaff batteries.

The proximity of our batteries to those of the enemy ranged between 1800 and 660 yards; one, since raised in the Quarries, is distant only about 300 yards; the Rifle Pits, in advance, were, in some places, within 40 yards of each other.

During the bombardments, the Royal Naval Brigade sent 600 men into the trenches; those remained on duty between twenty-four and twenty-six hours; they marched into and out of battery under cover of night, to prevent the enemy firing upon them; the men took out their provisions cooked, and were accompanied by two Medical Officers —one for the Right, the other for the Left Attack.

The first parallel was occupied by the Royal Naval Brigade, Royal Artillery, Engineers, and Medical Officers, with their orderlies.

In the ravines, leading from the Camp to the batteries, ambulances were stationed for the transmission of the wounded to the Field Hospitals. The Medical Officers' duties in the trenches consisted, for the most part, in affording temporary relief to the wounded, namely, arresting hæmorrhage by ligature and tourniquet; splinting broken limbs, bandaging and forwarding the patients by fatigue parties on stretchers, to the different stations of the Ambulance Corps.

Most of the wounds were interesting in a Surgical point of view, but it would be both useless and tiresome to attempt even a list of them; yet some appeared to be so very singular in their nature, that I will mention those only, to the exclusion of all others.

I. *Shell Wounds.*

A seaman, knocked down by a fragment of mortar shell, was picked up dead. The head was apparently swept from his shoulders, but there was no trace of hæmorrhage. On disentangling his clothes, which were tightly jammed around the injured part, the head was found driven downwards into the chest, carrying with it a great portion of blue shirt and red comforter. A small tuft of hair alone was visible, at the bottom of a deep cavity. It was a regular intussusception.

An officer of Engineers had just entered the battery, when a 13-inch mortar shell fell close by him, exploding as it struck the ground. One thigh was blown into the air; the other, with its bones, shattered throughout, but retaining its continuity by means of the integuments, was thrown around the back of his neck, and hung pliantly over the opposite shoulder, just as the arm of a child might lie in contact with its mother's neck. He lived for a few minutes.

A shell from the Malakhoff burst through the embrasure of the right Lancaster gun, disabling four men. One received a compound comminuted fracture of the left thigh, and a similar injury of the arm; the second, a compound comminuted fracture of the left thigh; the third, a comminution of the right knee-joint and ankle, both which joints were widely open. About a pound weight of the iron shell was immovably impacted in the inner condyle of the femur. The fourth was an artilleryman at the next gun, whose tarsus was injured. There was extensive laceration in the three first cases, and the shock was extreme: there was an oozing or welling of blood in two of them. The Medical Officers attended to those cases where the men fell in rear of the embrasure, at which the enemy still continued to pour their shot and shell, but, fortunately for the Medical Officers, with less precision than before.

A shell was fired at a group, principally composed of Sappers and Miners. One was killed, his face having been shot away. Another was carried up to the first parallel badly wounded. On examination, it was found that half of the inferior maxilla of the dead man was driven into the roof of the second man's mouth.

A night or two after the capture of the Quarries, a man was killed in them by a shell from the Redan. An officer of the 97th, who was standing close by, received several severe superficial wounds from splinters. A foreign body was imbedded in the middle third of the left thigh, which was easily withdrawn by the finger. It was a large portion of one of the cylindrical bones of the man who had been killed; it was as sharp as a chisel.

Two artillerymen stationed in the 8-gun battery, in the advance, on the right attack, were sitting or lying down, engaged in conversation, when a shell exploded as it approached their position. The head of one was taken off, as if by an ax, above the neckcloth, the tie of which was undisturbed. The forearm of the other man must have lain in juxtaposition with his thigh, for both limbs were lopped off by the same blow, in a line corresponding with Poupart's ligament. This man lived for about half an hour, urgently requesting all around him to keep sprinkling his face with water. The wounds in both limbs were jagged. The muscles of the thigh were drawn out in long bands: there was no hæmorrhage.

Another artilleryman, somewhere about the same part of the works, had his left knee-joint laid open and comminuted by a fragment of shell: no shock; a slight hæmorrhagic oozing. As he approached the Medical Officers on a stretcher, he facetiously asked, if it was not "a wooden leg for him?" and as he was being carried to camp he asked us "to make the leg for him."

A 13-inch mortar shell dropped so close to a seaman that it burned his perinæum, testicles, and clothes as it burst. One of the ankle-joints was laid open; but the wonder is, how he escaped being blown to fragments.

About the central point of Gordon's battery, a shell burst among a gun's crew. One poor fellow was struck over the angle of the ribs. He uttered a cry for the Doctor, and rushed about twenty yards, when he staggered, fell, and instantly expired. His heart and great vessels were ruptured. A second man's face, right shoulder, and arm, with the trapezius and latissimus dorsi, were torn away from the body. A third received a compound fracture of ankle-joint, and a similar one of the ulna. The fourth escaped with a severe laceration of the calf of the leg.

An artilleryman, sitting near one of the magazines, had part of his thorax and shoulder cut away, in a line from the sterno-clavicular articulation to the hypochondrium, by the half of a 13-inch shell falling upon him.

As the Military Relief entered the Right Attack early one evening, the enemy opened a fire of shell upon them from the Garden batteries. One burst over the head of the column, by which two men were killed, and about a dozen seriously wounded, the legs and arms of some being carried away. One man, whose forearm was destroyed, had all the comminuted bones driven into the thigh.

II. *Wounds from round shot.*

These wounds are easily recognized at the first glance, as there is but little variety in the appearance they present. Most of the men killed by shot had their heads knocked away, either completely or in part. However, some cases occurred where those large projectiles went through the body, and even through the upper part of the thigh, making orifices of entrance and exit.

A bombardier, at one of the mortar batteries, while in the act of laying the mortar, was struck over the ribs by a spent shot, which had barely sufficient force to ricochet over the parapet, and drop into the covered way. As soon as the man was struck, he uttered a loud scream, and, as he fell, made a convulsive death-grasp, and seized the cap of the officer who was standing beside him. Death was instantaneous, although there was no mark nor breach of surface to show the size of the injury. Nothing could persuade his companions against the idea of his having been killed by a "wind contusion."

During the past winter, a shot ricochetted with great force over one of the parapets, carrying away the cap from a seaman's head. The man was a little stunned, but no further mischief ensued. When his cap was picked up it contained a handful of hair, which had been shaved from the scalp by the shot. This would have been "a poser" for the old wind contusionists!

III. *Bullet-wounds.*

Our advanced trenches being, in many places, within forty yards of the enemy's rifle-pits, wounds of great severity were inflicted on both sides, as the force of the bullets was undiminished by distance. The orifices of exit, caused by the conical balls, more resemble shell wounds,

in some instances, than a bullet aperture. In wounds about the head, especially, I have seen nearly the whole of the parietal bone carried away.

Notwithstanding those jagged wounds from Minié balls, I have seen a soldier of the 41st hit by one on the nose, which caused as clean a wound as if done by a sharp knife. The nose was divided at the junction of the cartilages with the bones. The lower portion dropping down, but adhering by a good pedicle. It was brought together, as in hare-lip.

Most of the wounds caused by the new conical bullets are, however, remarkable for the manner in which they plough up the soft parts.

A soldier of the 33d was struck by a ball which made six openings. It passed through the right thigh, through the scrotum, and through the left thigh, where it escaped.

The Russians use several kinds of bullets—one a solid conical ball, which belongs to the Liège rifle; another of a larger size and conical form; hollow at the base, with a small pillar, or nipple, standing in the cavity. It is surrounded by three lines. At the base, to guide the ball in its flight, there are two other smaller ones, modifications of this principle. The old round ball is also still employed. In some cases two of those round bullets have been found connected by a transverse wire, like bar-shot.

IV. *Grape-shot wounds* have been severe and numerous. The following was an interesting case:—

A soldier of the 49th was struck on the temple by a grape-shot, which destroyed the squamous portion of the temporal bone. The brain was flowing through the wound, the man breathing stertorously. The grape-shot was supposed to be within the skull. It was subsequently found in his mouth, at the base of the tongue, pressing against the epiglottis.

Since the commencement of siege operations before Sevastopol, one Medical Officer has been killed, and two or three have been wounded. The first, Mr. O'Leary, Assistant-Surgeon of the 68th Regiment of Light Infantry, was actually cut in two by a cannon-ball while in the act of assisting a wounded seaman. It is only to be wondered at that more casualties have not occurred among the Medical Officers; for during the heat of the fire they are constantly called from place to place, running along the batteries through the line of fire, in quest of the wounded. During the second bombardment this peripatetic system was very trying and fatiguing, for the soil was heavy and tenacious from the torrents of rain that then deluged the trenches; and instances occurred where officers' boots drew off while running along to assist the wounded.

The French arrangements are excellent. They have established a surgery, with all the necessary appliances, in one of the ravines, where a staff of Medical Officers are stationed for daily duty. The Medical Officers in the trenches apply tourniquets, or do whatever is most urgently called for, on the spot, and then send the wounded on to the Hospital Staff, by whom they are next examined. If the cases

demand immediate amputation, the operations are performed; if not so urgent, the cases are sent on to the Field Hospitals.

The duties of the siege fall heavily on the Medical Officers of the Naval Brigade, five of whom do that duty, and out of the five two go daily on trench duty. It comes to the turn of an Army Medical Officer to go less seldom into the trenches. The time of duty varies in the different divisions, according to the strength of the Medical Officers in them. In some the Medical Officer goes once in a fortnight, while in others the time extends even to once in five or six weeks. The Royal Artillery send no Medical Officer now, unless a general bombardment be going on. On the whole, this trench duty is very trying and hazardous; and, in performing it, the Medical men run the same dangers, if not more, certainly not less, than the executive Officers, who are generally stationary in a battery, while the Medical Officer, as ubiquitous as possible, is rushing in all directions to succor the wounded.—*Med. Times and Gazette.*

On Cæsarean Operation, and its performance more than once on the same subject. By Prof. Stoltz, of Strasbourg.—For upwards of fifty years, says M. Stoltz, this operation, although frequently resorted to in Paris, has not generally been followed by success, whilst towards the close of the last century it was, in numerous instances, attended with the best results, in the hands of the celebrated accoucheurs of that period, Lauversat, Deleurye, Coutouly, Millot, etc. This failure of the operation, in the practice of modern surgeons, he considers as having led to its being regarded as much more hazardous than it really is, and to its consequent restriction to those cases in which it is found impossible to effect delivery by any other method. Thus, the accoucheurs of Paris have nearly all been induced to adopt the English practice, according to which, rather than risk the life of the mother, they sacrifice that of the child, wherever the difficulty appears surmountable by so doing; a proceeding which our author believes to be unjustifiable, on the grounds that one life is taken without any certainty of thus saving the other. M. Stoltz has performed the Cæsarean operation six times, with the result of saving both mother and infant in four of these instances, and the child in the remaining two. The latest of these cases is that which he communicates to the Academy of Sciences, as possessing additional interest in the fact of its being the second occasion in which the operation had been performed, with complete success, on the same individual.

The patient, Adele Fenninger, æt. 39, was the subject of general rachitic deformity, and had been operated on, three years previously, by Dr. Bach, of Strasbourg, who published the case in the *Gazette Médicale*, of that city, in 1846. On that occasion the operation was successful, although performed under very unfavorable circumstances, the patient being "radicalement" rachitic, in very delicate health, ill nourished, and suffering from considerable obliquity of the uterus. At the time of the operation, somewhat too large an incision in the abdominal and uterine walls was attended with troublesome protrusion of the

intestines; and during the progress of the case, erysipelatous inflammation of the points of suture, and phlebitis, followed by œdema, of the left inferior extremity, were circumstances which more than once threatened the life of the patient; however, by careful attention, these dangers were averted, and a complete cure was obtained in the space of two and a half months.

The second operation, which presents no features of much importance, is minutely described by M. Stoltz, who remarks, that from the ordinary course of the second pregnancy, three years after the first operation, it may be concluded that the cicatrization of the uterus had been sufficiently perfect to resist with impunity a second dilatation of that organ; and that the second operation, like the first, had been complete in its success, mother and child being both saved. In conclusion, he refers to a number of other instances where the operation had been repeatedly performed on the same patient with successful results. The following published cases are enumerated by him, and the publication mentioned in which they are to be found:—

Dr. Mangold, of Bale, operated, first in 1797, and again in 1801, and M. Mautz, in 1807, upon the same patient, who died on the twenty-second day after the third operation.

Dr. Bacqua, of Nantes, operated successfully on one patient, first in 1797, and again in 1806.

Dr. Dariste, of Martinique, operated successfully on one patient in 1805 and 1807.

Dr. Lemaistre, d'Aix, operated three times on one patient, in 1805, 1807, and 1814. The patient died five days after the last operation.

Dr. Charmeil operated in 1813 (?), and another surgeon in 1814, on one patient, each successfully.

Chaussier communicates the successful performance of the operation a second time.

Merrem of Cologne, operated successfully on one patient, first in 1812, and again in 1826. Dr. Zwanck operated for the first time on a patient named Adametz; Dr. Weidemann operated a second time; Dr. Michaelis a third, and again a fourth time, with success.

Dr. Rouvin communicates a case where the operation was repeated with success. Dr. Bowen performed the operation twice on one patient, in 1833 and 1835, with success.

Professor Kilian, of Bonn, operated successfully on one patient, first in 1832, and then in 1838. In another case, he operated in 1837, and the same patient recovered from a repetition of the operation in 1843.

Dr. Mestenhaeuser operated successfully on one patient in 1840 and 1844.

Here then, adds M. Stoltz, are fourteen well authenticated instances of this operation having been successfully repeated on the same patients. In two of the cases mentioned, the operation was performed three different times, but, on the last occasions, followed by the death of the mother. In a third instance, however, it was performed no less than four times with complete success. This example would almost induce him to believe in those cases quoted by some authors, where women were said to have undergone the Cæsarean section six or seven times. —(*Gazette Médicale.*)

PRACTICAL MEDICINE.

Account of Certain Anomalous Cases resembling Variola and Scarlatina. By W. T. GAIRDNER, M.D.—Recently, before the Medico-Chirurgical Society of Edinburgh, the author made some remarks on these anomalous cases, and on certain forms of disease, closely resembling them, which he had observed at different times. According to Dr. W. T. Gairdner's experience, some forms of syphilitic eruption very closely simulated variola; and, though the distinction could generally be made either at once or after a short period of observation, yet cases were not wanting in which the febrile concomitants and the character and distribution of the eruption combined to deceive the practitioner until after the lapse of several days. A case of this kind, in which the eruption appeared to be determined in a syphilitic constitution by the use of hydriodate of potass, was detailed to the Society at some length; and others were more shortly alluded to. During the past winter, Dr. Gairdner had witnessed a number of cases which he was disposed to consider as irregular forms of scarlatina. The regular type of the disease, although not present in an epidemic form, had, nevertheless, been occurring throughout the winter in Edinburgh and the neighborhood, in isolated cases and groups of cases. In Leith, there had been few cases, and those very mild. In Corstorphine and in Cramond, cases of scarlet fever had likewise occurred. In London, it appeared, from the Registrar-General's returns, that scarlatina had been twice as frequent during the April quarter as during any similar period for the last five years; and Dr. Gairdner thought it not improbable that an epidemic of scarlatina was to be looked for in the course of the summer in Edinburgh. His attention had been attracted, while performing dispensary duty last winter, by a considerable number of those submaxillary and cervical suppurations or acute swellings which are known to accompany scarlatina in many cases. There were comparatively few of these in which the history of an eruptive disease could be traced; and in two cases, in which eruption distinctly presented itself while the case was under observation, there were peculiarities in its character which were worthy of notice. In one, the eruption was discovered for the first time in the second week. It had been carefully looked for, at a considerably earlier period, without result; and had altogether escaped attention, if, indeed, it occurred before. In its character and distribution it resembled roseola much more than scarlatina; and the case was published by Mr. Geo. S. Sutherland, to whom it occurred, in the last number of the *Edinburgh Medical and Surgical Journal*, as a case of doubtful exanthematic disease. Shortly afterwards, a case of unquestionable scarlatina, with an ordinary eruption, and severe throat affection, occurred in the immediate neighborhood (Blackfriars Wynd); and in this case, which was, like the other, fatal, the rare occurrence, first noticed by Dr. Willan, presented itself—viz.: a recurring eruption at a very late period of the disease—the thirteenth day; this secondary eruption being much brighter than the other. Dr. Gairdner had repeatedly seen the eruptions of scarlatina and of small-pox much retarded, both in the date of their appearance and disappearance; and this not only

in severe and irregularly developed cases, like those just mentioned, but in some which ran quite a favorable, and, in other respects, a normal course. In one very mild case of scarlatina, he (Dr. Gairdner) had seen the eruption appear somewhat late, and continue very bright throughout the greater part of the second week, when the patient, indeed, was quite convalescent. Dr. Hamilton, of Falkirk—a good authority on scarlatina—had also repeatedly observed this retardation of the eruption, but, for the most part, in severe cases.

Dr. J. D. Gillespie remarked, that he had lately seen a case illustrating what Dr. Gairdner had observed as regarded a second eruption appearing in scarlatina. The patient was an infant nine months old, and was one of a family of nine children, who had all, except the eldest, had a second attack of the disease, the whole of them having had well-marked scarlatina about a year previously. The infant had a copious florid eruption, and other ordinary symptoms, from which it appeared to be convalescing, when, about a fortnight subsequently, very severe coryza supervened, and, some days thereafter, a very extensive eruption appeared, resembling, somewhat closely, the eruption of measles. This eruption remained out two days, and then swelling of the parotid and cervical glands ensued, under which the little patient at length succumbed. Professor Simpson and Dr. Priestly had both seen the case. The father of these children being himself a retired medical man, and a careful observer, there could be no doubt as to the recurrence of scarlatina in seven of his children.—*Edin. Med. Jour.*

On the Pathological Anatomy of Chronic Hydrocephalus. By M. Blache.—In this communi cation, read before the Academy of Medicine, by M. Blache, one of the candidates for the vacant place in the department of pathological anatomy; the author's intention is to describe, more precisely than has hitherto been done, the details of the pathological alterations resulting from this disease.

He first examines the changes undergone by the nervous substance itself and the membranes enclosing it; and then passes on to the consideration of those occurring in the different cerebral cavities, and the canals and orifices connected with them. The following are the conclusions at which M. Blache arrives:—

1. In internal hydrocephalus the serum accumulates in the cerebral ventricles, but not in the cerebellar or fourth ventricle; it does not communicate with the cephalo-rachidean liquid.

2. Contrary to the opinion of some authors, the white and the gray substances are recognizable in the nervous laminæ, into which the fluid pressure transforms the ventricular walls; when the distention has not been excessive, the circumvolutions are also to be found, and, in all cases, thickenings, which are the vestiges of them.

3. The corpus callosum, fornix, and septum lucidum, are almost entirely destroyed and converted into fibrous laminæ.

4. The tuberculum annulare, the cerebellum, and the origin of the cranial nerves, preserve their integrity, with the exception of more or less alteration, always existing in the optic and olfactory nerves.

5. The ventricular membrane is thickened so much as to be capa-

ble of dissection throughout its whole extent, by which it has been established to be continuous with the choroid plexus, and prolonged across the aqueduct of Sylvius and the foramen of Monro.

6. In the interval between the two laminæ, which, by facing each other, form the septum lucidum, it is easy to demonstrate the existence of the fifth ventricle, and its communication with the third.

7. The pituitary body is canaliculated.

8. The anterior orifice of the aqueduct of Sylvius was found obliterated in the two cases where this was examined; the cerebral cavities were thus completely closed.

9. Regarding the nature of the malady, the absence of all softening of the cerebral substance, and the very slightly plastic nature of the fluid effused, discountenance the idea of chronic hydrocephalus being the result of inflammation. In our opinion, says M. Blache, it is a pure and simple hydropsy.—*Edin. Med. Jour., from L'Union Médicale.*

On the Use of Chlorate of Potash in Mercurial Stomatitis.—From the experiments of M. Herpin, of Geneva, from those of M. Blache (*Gazette Hebdomadaire*, vol. ii., No. 8, page 147), as well as from some well-detailed facts that M. Demarquay has just reported, it would appear that chlorate of potash, given internally, arrests, with rapidity and certainty, the effects of mercurial stomatitis. This effect has been established in patients in whom the mercurial intoxication supervened on the exhibition of mercury for syphilis, puerperal peritonitis, and ophthalmia.

The chlorate is administered in a mucilaginous mixture, the dose commencing with half a drachm, which is frequently sufficient to remove the symptoms. But it has been given to the extent of four scruples, two and a half drachms, half an ounce, and upwards.

As this medicine, notwithstanding its remarkable efficacy, is by no means a specific, we must not neglect to combine with it local astringents and caustics, which, even alone, possess so powerful an action in mercurial ptyalism.

M. Gustin, intern in pharmacy, wishing, for the sake of experiment, to submit himself to the action of chlorate of potash, took two drachms at nine o'clock in the evening. On awaking, a sort of astriction, with slight nausea, was perceived in the mouth; the gums were a little rough to the touch. Although the saliva was not sensibly lessened, it appeared to him to be more watery than usual. This observer has also proved that the chlorate of potash is, in great part, eliminated by the urinary secretion.—*Bulletin Général de Thérapeutique*, and *Gazette Hebdomadaire.*

PART FOURTH.

AMERICAN MEDICAL RETROSPECT.

PRACTICAL MEDICINE.

Paronychia Benigna, Analysis of eighty-one cases, with Practical Observations. By AUSTIN FLINT, Jr., M.D.—From the foregoing facts we see that the causes of paronychia are various. The most frequent causes, however, are exposure of the hands to hot water, as in washing dishes, or a slight hurt or bruise. In forty-one cases the causes were of this description. More rarely the cause is general or constitutional, though this is sometimes the case. In ten cases the cause has been recorded, bad health, ship fever, suppressed menses, etc.

Of the entire number of cases, one was not properly a paronychia, but was a fungus at the root of the nail; eight were of the first variety, onychia cutanea; five were of the first and second variety, cutanea and cellulosa; and the remaining sixty-seven were of second, third, and fourth varieties, onychia cellulosa, tendonosa, and osteosa.

In the case of the fungus at the root of the nail, nothing is recorded, but that on the twenty-first day the fungus was the size of a pea.

The cause was recorded as constitutional in three of the five cases, which were of the first and second variety combined; there was no record, under this head, in the remaining two cases. In three of these cases the treatment was merely the application of arg. nit.; in one case it opened spontaneously on the eighth day, but the inflammation extended to the areolar tissue, pus was formed, and it was opened on the fourteenth day; in the remaining case there is no record under the head of treatment.

All these cases resulted in perfect cures.

Of the eight cases of the first variety, onychia cutanea, six were caused by slight injuries, and two were dependent upon constitutional causes. Six were treated with arg. nit, and poultices; one with a poultice alone; and one got well spontaneously. One, however, was opened before the arg. nit. was applied.

Four of these cases resulted in a perfect cure; one of them in the loss of the nail, and the remaining three appear to have been lost sight of.

In the sixty-seven cases which were of the second, third, and fourth varieties, I shall consider only one feature in the treatment, namely, whether it was opened or not, and how long after the commencement of the disease before it was opened. The other measures of treatment

have been so imperfectly recorded, that their consideration would be of little value.

In fifty-five cases the result has been recorded. Thirty-six resulted in perfect cures; and nineteen, either in loss of part of the finger, or anchylosis.

Of the thirty-six cases, twenty-nine were opened; in the remaining seven cases, there is no record under this head. In twenty-seven cases pus had been formed; the remaining nine did not suppurate.

Of the twenty-nine cases where the finger was laid open, ten were opened on the seventh day; eight of these had suppurated and two had not. Seven were opened on the tenth day; three on the fourteenth day; two on the thirteenth day; one on the eighth day; one on the eleventh day; and one on the fifth day. All of these had suppurated. Two were opened on the fourth day, one having suppurated and one not. One was opened on the third day, and one on the second day; neither of them having suppurated.

In the nineteen cases where the cure was imperfect, twelve were opened, and in seven there was no record under this head.

One was opened on the twenty-eighth day; one on the twentieth day: one on the fifteenth day; one on the fourteenth; two on the seventh; and one on the fourth day. In the last case no pus was found. One case opened spontaneously. This case was treated by an empiric, who was prosecuted and mulcted in damages, for not opening the finger. The case resulted in a loss of the entire finger.

From the results of these fifty-five cases, we see that we may expect a perfect cure in the majority of cases. In the cases which resulted in perfect cures, only six, out of twenty-nine, were opened after the tenth day; seven were opened on the tenth day, and ten on the seventh day; and one was opened as early as the second day, before pus had been formed. None were opened later than the fourteenth day. But in the cases where the cure was imperfect, one was not opened at all; seven were opened from the fourteenth to the twenty-eighth day; two only were opened as early as the seventh day, and one on the fourth day.

These facts show the importance of opening the finger at least as early as the tenth day, and it would appear to be proper to do so, as soon as the disease has become established; even before pus has been formed.—*Buffalo Med. Jour.*

Paralysis Supervening after Anæsthesia by Sulphuric Ether. By Dr. Hooker, of East Cambridge, Mass.—In the month of November, 1853, I administered sulphuric ether to a gentleman from the country, for the purpose of removing a fatty tumor from the back part of the left shoulder and neck. The tumor extended from a little above the spinous process of the scapula along the trapezius muscle upwards, to its insertion in the occiput. The tumor was wholly between the fascia covering the muscle and the skin, leaving but little adipose matter between the tumor and the skin. The tumor was confined wholly to the left side, not extending over the median line, and was from five to six inches in length, and from two to three inches in width. The

operation and dressing did not occupy more than half an hour, and during that time about eight ounces of concentrated sulphuric ether were used. For only a short space of time was the patient completely narcotized. The operation was performed in the sitting posture, and but little blood was lost. Before the dressing was completed, a change came over him, resembling syncope, and he was removed to his bed. Free emesis then took place, and he soon rallied, but not to perfect consciousness. After a little delay, he was left for the night, apparently as comfortable as is usual after etherization.

The next morning he gave the following account of himself during the evening and night. As his consciousness returned, he found the same prickling and benumbed sensation in his limbs, that he felt creeping over him when he first began to inhale ether. This was alike on both sides of his body. It soon passed off from the left side, but did not from the right. During the night, he found that he could not move his right arm and right leg, that they were destitute of sensation, and that he had not been able to move himself from the position in bed in which we had placed him after the operation. In this condition I found him in the morning. Complete paralysis of the right side, excepting the nerves of the face, tongue, and throat. He had retention of urine. The paralysis of the extremities continued for nearly a year, before he was able to use his limbs with any degree of freedom.

He was a man of forty years, healthy, of abstemious habits—a rigid cold-water drinker; had never had any paralysis before, nor is there any predisposition to it in the family. He was of a taciturn character, but for two or three weeks after the operation he was very jocose, exhibiting a degree of levity entirely at variance with his usual turn of mind. He had taken a good deal of exercise in the early part of the day of the operation, and had eaten pretty freely of a boiled dinner, consisting of potatoes and squash, with a small amount of corned beef, as was shown by what he ejected from his stomach. It will be remembered that he did not vomit till after he was placed in bed, and after the syncope.

The interesting question now occurs, what was the cause of the paralysis? Was it the inhaling of ether, or was it from the loaded state of the stomach and the shock the system may have sustained from the operation? To the friends, I suggested that it might have arisen from the two latter causes, as ether had, to my knowledge, never been known to produce permanent paralysis. I must confess, however, that the suggestion was far from being satisfactory to myself, and I have thought the case worthy of being reported to the profession.—*Boston Med. and Surg. Jour.*

Foreign Body in the right Bronchus—Ejected by exciting Cough. By Prof. Paul F. Eve, M.D.—On the 29th of April last, Mr. Hendrix of Marion county, East Tennessee, brought his son, aged four years, to Nashville, seeking relief from the symptoms produced by a grain of corn which had passed down his wind-pipe. This occurred two weeks previous to his arrival here, when the child was playing

with his sister, who excited laughter while he was holding the grain of corn between his teeth. He was instantly seized with a severe paroxysm of cough, attended with threatened suffocation, which recurred at irregular intervals, but particularly early in the morning. Emetics, percussion upon the chest, inversion of the body, etc., having failed to remove the foreign body, the patient was then brought to our city.

Dr. Parks of Williamson county, (on a visit,) and Drs. Watson and Briggs examined the case with me. We ascertained that air was occluded from the right lung during ordinary respiration; but that some did penetrate at violent and sudden efforts at inspiration, and then there was loud mucus ronchus: there was increased expansion in the left lung; flatness on the right side of the thorax; altered voice; considerable febrile action, with irregular circulation, manifested, when the patient became excited, by distention of the veins in the neck, pallor of the lips, etc. There were no symptoms of the grain of corn having lodged in the larynx or trachea.

From these phenomena, collected, it is true, not only without the cooperation, but during the resistance of the patient, and from the history of the case, we diagnosed the presence of the foreign substance in the right bronchus. And it fortunately happened, during a violent paroxysm of cough, excited by manipulating upon the chest, and the anger of the boy, that the grain of corn was expelled and fell upon the floor of the room enveloped in mucus. Respiration instantly became easier and the unpleasant symptoms disappeared, leaving only a slight bronchitis.

The corn is a large grain of the common gourd seed variety, having a considerable spiculum at the cob extremity and a flattish one at the other or free end. The husk had probably been cut by the teeth of the child, for it was softened, even pulpy, and some of the farina had exuded and came up with the mucus from the bronchus.

One Remark.—Does not this case furnish a hint as to the propriety or necessity of operating for the removal of foreign bodies from the air-passages? It is this, so long as air, under any circumstances, *can pass the substance introduced*, we may hope for its expulsion without opening the larynx or trachea.—*Nashville Jour. Med. and Surg.*

On the Use of Sulphate of Bebeerine in Menorrhagia. By Prof. A. P. Merrill, M.D.—A few weeks ago I was summoned, in haste, to a lady suffering from an attack of menorrhagia. She had been long subject to excessive menstrual discharges, and uterine hæmorrhages, and had been treated for them by several physicians without success. I administered five grains of the sulphate of bebeerine, which I happened to have in my pocket, and ordered twenty pills of four grains each, one of which she was directed to take every two hours, until relief should be obtained. On visiting her the succeeding day, she showed me the twenty pills, and said the dose I had given her suspended the discharge before they were brought from the druggist, and she deemed it unnecessary to take them. One other case, occurring about the same time, in all respects

very similar to the above, was relieved, also, by a single dose of five grains.

I could relate more than a dozen cases besides the foregoing, more or less severe, in which the sulphate of bebeerine has been successful. Several women in this city are now in the habit of keeping the remedy always at hand, with perfect confidence, from the results of their own experience, of being able to restrain excessive menstruation, and uterine hæmorrhage, whenever they may occur. In several cases, also, I have known it relieve leucorrheal discharges, and to give tone and vigor to the vagina, suffering relaxation from the effect of such discharges; and it is the only internal remedy upon which I have been able to rely, for the relief of *pruritus vulvæ et vaginæ*. Whether this remedy will prove to be as valuable as the above experiments would seem to indicate, remains to be proved; and it is with a view to elicit such proof, that this publication is made.—*Memphis Med. Recorder.*

Complete Inversion of the Uterus—Restoration on the Seventh Day. By Prof. F. H. Hamilton, M.D—Mrs. A. B., aged twenty-two years, was brought to bed with her first child on Friday, the 30th of March, 1855. Mrs. B. had always been delicate. The labor was not rapid, nor remarkable in any respect. The surgeon in attendance, one of our most skillful and experienced country accoucheurs, was waiting quietly for the placenta, when, without any admonition, it was suddenly expelled, and at the same moment, the uterus become completely inverted. The surgeon was immediately aware of what had occurred, but in the midst of his surprise at so unusual an event, and his alarm for the safety of his patient, who seemed to be dying, he omitted to make any attempt to restore it to position.

After some hours, Mrs. B. began to rally, and from this time she steadily improved until I saw her, just seven days from the day of her delivery. She was then pale, but this was, in some degree, habitual. Her bladder and bowels had been emptied regularly. The uterus could not be felt in the belly. The hæmorrhage, which had never been excessive, ceased entirely a few days after the occurrence of the inversion. She had an almost constant pain in the region of the uterus and vagina, low down in her pelvis, with occasional exacerbations like after-pains. The uterus could be felt, as she lay upon her back, about one inch within the vulva, and of the shape and size, nearly, of a large pear. The fundus was rough and slightly fissured, feeling somewhat like the surface of a placenta, but much more firm. As the finger was pressed upwards and around the sides of the tumor, the surface became abruptly more smooth. The *cul de sac* formed by the reflection of the vagina from the neck of the womb was easily reached on all sides. The womb was not particularly tender to the touch.

Mode of Reduction.—The patient lying in bed upon her back, I introduced my right hand carefully into the vagina and pressed the womb upwards firmly, until the walls of the vagina were extended to their utmost, and my strength was nearly exhausted. During most of this time I was pushing with my four fingers and thumb, grasping the

uterus, and only once did I rest a knuckle of my forefinger against the fundus. The patient was hurt considerably, but no impression was made upon the inversion.

After a few minutes I repeated the same manipulation, and with the the same result.

Reluctantly, I now made a third effort, having very little confidence that I should succeed, at least without the aid of chloroform. I employed at this time no more force, nor was it longer continued, but while I was pushing I felt the uterus gradually receding, and in a few seconds more my fingers were within the neck, which opened widely beneath the restored fundus and body. I continued to press gently against the inside of the womb, as if to support it from falling, and meanwhile the mouth was felt to be closing by a sensible and irregular contraction, until at length it was sufficiently closed to warrant a withdrawal of the hand.

The patient was only slightly fatigued. The womb could now be distinctly felt in the abdomen.

The process of restoration was by *evolution from the neck*, and not by introversion from the fundus. This could be distinctly observed throughout the procedure, the fundus being the last to disappear. There has been no recurrence of the accident, and her recovery is complete.—*Nashville Jour. of Med. and Surg.*

SURGERY.

Resection of the Superior Maxillary Bones for Medullary Fungus. By M. SHUPPERT, M.D., of New Orleans.—I ordered the patient to the Charity Hospital, on the 15th August, and operated next day in the amphitheatre of that institution, in presence of a number of medical gentlemen, with the assistance of Drs. Beard and Choppin.

The appearance of the disease at that time was as follows: On the right side of the face, below the orbit, between the zygomatic process and the nose, there was a tumor of $5^{cm.}$ in diameter at its base. The skin over it was red, and innumerable enlarged blood-vessels were to be seen just under the surface. Above the tumor there was an abscess of the lachrymal sac, and there was no doubt that the disease had extended to the left maxillary bone. Out of the nostrils protruded some tumors. Inside the mouth nearly the whole bony wall was involved in fungus growths of different sizes, of red color, and effusing matter of a penetrating odor.

He was put under the influence of chloroform. An incision was now made down the nose, beginning opposite the inner canthus of the eye, having the septum to the left, and cutting through the upper lip near the right edge of the fossa. A second incision was made, beginning at the same point as the first, and extending under the eye-lid to the molar bone of the right side of the face; and a third was made on the left side, of the same extent. The two flaps were now detached from the bones and held back by assistants. The greater part of the right superior maxillary bone was gone and replaced by fungus

growth. From the left maxillary bone about two-thirds were taken with Liston's process. The flaps were brought back to their places and retained by twisted sutures. Patient lost but little blood. At night he had slight fever. Morphine was ordered.

On the 5th day the needles were taken out, and notwithstanding the parts had healed, adhesive strips were applied to support the cicatrices. On the 10th day the patient was sent out of the hospital. His appetite had returned; he could sleep well, and his strength was being rapidly regained.

During the operation, the patient was under the influence of chloroform up to the time of the application of the cautery. Notwithstanding the blood was constantly running into the fauces during the operation, it was promptly rejected by the involuntary muscular motion.

Four weeks have elapsed since the operation was performed, and the patient is not only able to attend to his daily labors, but he has been during that time restored to society, and these results alone are a full equivalent for the few hours of suffering consequent on the operation.—*N. O. Med. News.*

On the Effects produced upon the Brain by, and the Statistics of, Ligature of both Primitive Carotid Arteries. By Geo. C. Blackman, M.D., Prof. of Surgery in the Medical College of Ohio.—To an exceedingly valuable and elaborate paper on this subject, published in the September number of the *Western Lancet*, we find appended the following remarks:—Our table embraces, including the one witnessed by Chelius, and the last reported of Dr. Mott, twenty cases, and of these the operation was followed by fatal results in but two instances. Dr. Mott tied both with an interval of only 15 minutes, and the result was almost immediately fatal. This case is a sufficient refutation of the doctrine laid down by Mr. Miller, in his paper to which we have already referred, and which was published in the *Ed. Month. Journ.* for Jan. 1842. After examining the results of the experiments of Mr. Robert on animals, Mr. M. asserts, that in future, we need not hesitate to secure both common carotids by ligature simultaneously, should circumstances imperatively demand such a severe proceeding.

The shortest period at which both carotids have been successfully tied, is four and a half days. The operation was performed by Dr. John Ellis, of Grand Rapids, Michigan, to arrest the hæmorrhage, proceeding from a gun-shot wound of the neck. The patient was 21 years of age. The left carotid was secured, Oct. 28th, 1844, and the right 4½ days subsequently. A slight coldness of the face on the side of the operation followed the application of the first ligature, and there was an occasional throbbing beneath the sternum. There was "slight paleness" after the second operation, and at the end of 24 hours the patient began to suffer from a hacking cough and difficulty of breathing. These symptoms at length yielded to venesection, aconite, and belladonna. In June, 1845, the patient was enjoying comfortable health and attending to business (*New York Journ. of Medicine, &c.*, Sept., 1845).

In conclusion, we may remark, the mortality following the ligature of both primitive carotid arteries, as shown by our table of cases, contrasts strangely with that in the one drawn up by Dr. Norris, of the ligature of one of these trunks (*American Journal of Medical Science*, vol. xiv. 1847). While his statistics show a mortality of 1 in 4 7–10 cases, our collection of both carotids exhibits but 1 in 20 cases. This estimate, of course, does not include Prof. Parker's fatal case, the cause of death in this being somewhat uncertain.

Dislocation of the Femur into the Ischiatic Notch. Reduction by Manipulation. By Prof. HAMILTON.—*March* 23, 1855.—Charles McCormick, aged 21 years, at work for the "State Line R. R. Co." was caught between two freight cars, with his back resting against one and his right knee against the other; his thigh being raised to a right angle with his body. As the cars came together he felt a "cracking" at his hip joint, and was immediately unable to walk or stand.

Two hours after, I saw McCormick, his right thigh was flexed upon his body to nearly a right angle and adducted, the knee being carried across the opposite thigh. It was also rotated inward, but not forcibly.

Procedure.—The patient lying upon his back, I seized the right leg and thigh with my hands, the leg being moderately flexed upon the thigh, and carried the knee slowly up towards the belly until it had approached within twelve or fifteen inches, when, noticing a slight resistance to farther progress in this direction, I carried the knee across the body outward, until I again encountered a slight resistance, and immediately I began to allow the limb to descend. At this moment a sudden slip or snap occurred near the joint, and I supposed reduction was accomplished; but on bringing the limb down completely I found it was in the same position as before. I think the head had slipped off from the lower lip of the acetabulum, after having been gradually lifted upon it.

Without waiting, I commenced to repeat the manipulation, and in precisely the same manner. Again at the same point, when the limb was just beginning to descend, a much more distinct sensation of slipping was felt, and on dropping the limb it was found to be in place and in form, with all its mobility completely restored.

No anæsthetic was employed, and no person supported the body or interfered in any way to assist in the reduction. No outcry was made by the patient, yet he informs me that moving of the limb hurt him considerably. The amount of force employed by myself was just sufficient to lift the limb, and the time occupied in the whole procedure was only a few seconds.—*Buffalo Med. Journal.*

THERAPEUTICS.

Sulphate of Quinidine in Intermittent Fever. By C. B. GUTHRIE, M.D.—The thirteen cases here reported were treated with quinidine, the sub-salt of the new Bogota bark—called by writers *China Bogotensis*. This new alkaloid differs from quinine, and has been esteemed as of less value in the treatment of periodic diseases. This bark is

found in the province of Fusagasoga, some twenty-five miles from Bogota, and is generally recognized under the common name of Bogota bark, a name applied commercially to all barks from that region of South America, though including seven or eight varieties, many of which contain quinine and cinchonine.

These cases were reported by Dr. Foote, of Texas, then a student in attendance at the Dispensary. Dr. F. remarks in his report to me, "In none of the thirteen cases did I hear any complaint of its affecting the head unpleasantly, as quinine so often does, though in many instances given in larger doses than we usually administer quinine." He also remarks that from the effect of the quinidine as exhibited by the cases reported, we are bound to acknowledge its "great anti-periodic power."

The question with the medical profession, especially here in the south and south-west, is not whether quinidine has anti-periodic properties alone, but whether it has not this therapeutical effect without the disagreeable adjuvant found in the quinine, and also whether the use of this alkaloid, the product of a bark not monopolized by the English government, or for which we may not be obliged to pay her tribute, may not be less expensive and quite as certain as quinine?—*Memphis Med. Rec.*

"*Sugar and Salt as a local Solvent in Chronic Congestion of the Cervix Uteri.* By Dr. F. J. Bumstead.—The following novel method of reducing the congested state of the cervix uteri, which is so commonly met with in the chronic affections of this organ, accompanied by discharge from the os and "ulceration" of its mucous surface, has been so successful in my hands, and in the practice of several gentlemen to whom I suggested its use, that I desire to make it more generally known through the pages of your journal. The plan of treatment of which I speak originated, I believe, with M. Caudmont of the *Ecole Pratique*, Paris; at any rate, whether original or not with him, it first came to my knowledge, four years ago, from his practice at his private clinique, and I have been unable to trace it to any other source.

The following is the method of its application:—The os uteri having been exposed by means of the speculum, equal parts of sugar and common table-salt, finely pulverized and mixed, are impacted around the vaginal portion of the cervix uteri, and retained in place by a pledget of lint or cotton wadding, moulded into the form of a *godet*, or small cup, and having a string attached to its convex surface to facilitate its subsequent extraction. Thus applied, it is left *in situ*, and the patient is directed to withdraw the plug, by means of the string attached, in the course of twelve to twenty-four hours.

Its effects are to produce a very copious discharge from the parts to which it is applied; so much so, indeed, that patients should be cautioned to take means for the protection of their linen; and at the following examination the cervix is found to be greatly relieved of its swollen state due to the products of congestion, and much reduced in size.

The most obvious explanation of the action of this application would appear to be found in the principle of exosmosis. Its advantages over the use of leeches or potassa fusa to accomplish the same purpose, are obvious. It is exceedingly simple and speedy in its action; it is attended with no danger of injury to the neighboring parts or of hæmorrhage; it attains the end with but little pain or inconvenience to the patient. Moreover, the experience of several gentlemen, enjoying a large field for observation in the treatment of uterine diseases, whom I induced to make a trial of Caudmont's method, confirms the result of my own practice, viz.: that it is even more efficacious as a solvent than the ordinary applications in chronic congestion of the cervix uteri." —*N. Y. Med. Times.*

Aromatic Syrup of Galls.—The following preparation has been considerably employed in Philadelphia, and is attributed by some to the late Dr. Joseph Parrish of this city. It is used in the diarrhœa of children.

Take of Galls, powdered	half an ounce
Cinnamon, bruised,	
Nutmegs, bruised, of each	two drachms.
French brandy,	half a pint.
Sugar, in small lumps,	two ounces (troy.)

Macerate the solid ingredients in the brandy for twenty-four hours, throw in a filter, and, when drained, add diluted alcohol till half a pint in all has passed.

Having placed the tincture in a shallow capsule, suspend the sugar over it, on a slip of woven iron wire, and then inflame the tincture. The flame proceeding from the burning alcohol fuses the sugar and scorches it so as to produce a portion of caromel, and as it melts it falls into and dissolves in the liquid beneath. When the combustion stops the whole should be stirred and filtered for use.—*Editor Amer. Jour. Pharmacy.*

To preserve Compound Syrup of Squills—Hive Syrup.—By A P. Sharp, M.D., of Baltimore.—Hive syrup being one of the most common and important syrups kept by the pharmaceutist, it is all important that it should be properly prepared, and not likely to ferment. In order to avoid the latter difficulty, (which is the common complaint among druggists and pharmaceutists,) I have tried several processes, intended, at the same time, to get possession of all the active principles of the root. The following method has proved the most effectual in overcoming the difficulty spoken of, and, at the same time, yields a beautiful, active, and certain preparation.

As soon as one lot is prepared, I immediately put another one under way, as follows:

The Seneka and squills (of each 8 oz.) are bruised to a coarse powder, and macerated with one gallon of diluted alcohol, (alcohol 1 qt., water 2,) until my stock of syrup is nearly out, (sometimes standing two or three months,) and then pressed or transferred to a percolator

and displaced. The tincture is then evaporated until I am satisfied there is no more spirit left. I then filter, when cold, to get rid of the albumen and resinous matter, and then add the sugar (7 lbs. troy) and evaporate (without boiling) to the proper quantity, (6 pints,) strain, if necessary, and add the tartar emetic, (96 grs.) Any one pursuing this plan, I think, will obtain a syrup that will prove satisfactory to himself, as well as to his customers.—*Stethoscope.*

MISCELLANEOUS.

A Remarkable Case of Super-Fœtation.—The following case was related to us by Dr. BIGELOW, of this city, who is cognizant of the facts:—Mrs. C., æt. 18, of healthy constitution, accustomed to menstruate every two weeks, was married Oct. 9, 1854, after which she had three menstrual periods in regular succession. On the 10th day of July following (nine months and one day after marriage) she gave birth to a full-sized male child. She did not, however, regain her former size, the lochia continued for a week; the milk was watery and scantily secreted, so that the child had to be fed, and in about a week she was up. She continued well until the 22nd of Sept., (72 days after the birth of her first child), when she was taken sick, as she supposed, with cholera morbus, but after a short labor she gave birth to a female child, of about the same size as the former. The lochia continued longer this time, and the milk was secreted abundantly. Both children are thriving, and the mother is in perfect health.

Second Edition of PROF. BEDFORD'S *Work on the Diseases of Women and Children.*—We have received a *second Edition* of PROF. BEDFORD'S *Clinical Lectures*, the first edition of which was issued about three months since. The rapid sale of this work we believe to be unprecedented in the history of medical literature in this country, which, with the general favor which it has received from the press, must prove highly gratifying to the author, showing, as it does, the degree of estimation placed upon his labors by the medical public. The following is the author's preface to the second edition:—"My Publishers having informed me that it is necessary to put to press a second edition of the '*Clinical Lectures on the Diseases of Women and Children*,' it would be affectation in me not to express the pleasure I derive from the rapid sale of the work, which, it must be admitted, is not only novel in its general arrangement, but which constitutes a very distinct departure from the systematic treatises heretofore presented to the practitioner and student of medicine. I was anxious that the Lectures should go forth to the profession without any concealment as to the circumstances under which they were delivered. The diseases discussed are, as it were, so many types of what the physician is constantly called upon to treat in his daily rounds of duty, and, therefore, their character is essentially practical. To say that the first edition has been exhausted in a period of three months, is at once an acknowledgment of the kind appreciation of my profes-

sional brethren. But I should be wanting in candor if I did not add that, in my opinion, the success of the work has been materially aided by the flattering criticisms of my brethren of the medical press. To those gentlemen who have so generally and spontaneously, in language of kindness, spoken of my work, I beg leave most cordially to return my thanks. I feel much gratified with their flattering commendations. It will be seen that I have added to the present edition *Formulæ of Remedies*, which, I trust, will prove serviceable."

College of Physicians and Surgeons.—Chair of Chemistry.—We learn that Professor Torrey, finding that his engagements at the United States Assay Office will prevent the satisfactory performance of his Collegiate duties, has resigned the Chair of Chemistry which he has held with so much credit to himself for the long period of nearly thirty years. To supply the vacancy thus created, the Trustees have selected Professor JOHN LE CONTE of the University of Georgia, who, we are happy to state, has accepted the appointment, and will enter on the performance of his public duties at the commencement of the ensuing Session. As this gentleman's name, though well-known to American Naturalists, among whom he has already gained an enviable reputation, may not be familiar to our purely medical readers, we have thought that something more than a mere announcement of his appointment might be acceptable to them. Professor Le Conte is a graduate of the College of Physicians and Surgeons of the class of 1840-41. In 1846 he was appointed Professor of Chemistry and Natural Philosophy in the University of Georgia. Here he soon acquired great popularity as a lecturer and has for some years been looked on as one of the strong men of that Faculty. From this scene of honorable labor he is now summoned, at the unanimous recommendation of the Faculty, his future associates, and by a vote of the Trustees equally unanimous, to take his place among the teachers in his alma mater. From intimate personal acquaintance we have no doubt that Professor Le Conte will amply justify the good opinion of the Faculty and Trustees. As an assiduous and successful cultivator of Natural Science he will not only be a great gain to the particular Institution in which he is to labor, but a most valuable addition to the scientific men of our city and State.

The following highly complimentary resolutions were adopted by the class of the University of Georgia, on the occasion of his leaving that Institution:

Resolved, That we deplore the resignation of Dr. Le Conte, as a loss to the community, as a loss to our State University, and as an irreparable loss to ourselves.

Resolved, That his uniform courtesy and gentlemanly bearing towards the Students, and his kind attentions and medical advice to them when sick, have enshrined his memory in their hearts.

Resolved, That his indefatigable efforts to promote their advancement in science, deserve our sincere and lasting gratitude.

Resolved, That our warmest wishes for his prosperity and happiness accompany him to his new home; and that, wherever his future lot may be cast, our sincere desire is, that he may receive the appreciation to which he is justly entitled by his merits as a man, and his attainments as a scholar.

Resolved, That a copy of these Resolutions be forwarded to Dr. Le Conte at the city of New York.

L. S. Wilson,
Frank M. Green,
Edward D. Beman,
} *Committee.*

Atlanta Medical and Surgical Journal.—Since the issue of our last number we have received the first two numbers of a monthly journal published at Atlanta, Ga. It is edited by Drs. Logan and Westmoreland, Professors in the Atlanta Medical College, and judging of the merits of the specimens before us, deserves the patronage of the profession. We welcome it to our exchange list.

Vermont Medical College.—The Chair of Anatomy in this College, recently made vacant by the resignation of Prof. Elliott, has been filled by the election of John W. S. Gouley, M.D., of New York city. This is an admirable selection, and one destined to advance the interests of the School, as Dr. Gouley unites in the highest degree the qualities of a successful student and competent teacher of Anatomy.

Second Edition of Vidal on Venereal Diseases.—We have received from Messrs. Wood, of this city, a second edition of Vidal's Treatise on Venereal Diseases, just issued. It is a work well deserving the rapid sale which it has met.

OBITUARY.

Death of Moreton Stillé, M.D.—Died at Saratoga Springs, on the 20th of August, Moreton Stillé, M.D., aged 33 years. Dr. Stillé was a resident of Philadelphia, where he had acquired an enviable reputation as a writer and lecturer. He had just finished the preparation of a work on Medical Jurisprudence, on which he had been most devotedly engaged for the last two years of his life.

Death of Elisha Bartlett, M.D.—Died at Smithfied, R. I., on the 12th of July, Elisha Bartlett, M.D., late of this city. It is with profound regret that we record the decease of this eminent physician. His loss to our profession is almost irreparable, whether considered as an author or teacher. At the time of his death, Prof. Bartlett occupied the Chair of Materia Medica in the *Coll. of Phys. and Surgeons*, in this city.

We hope to be able to present our readers with a more perfect biography of the deceased, at some future period.

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MASSACHUSETTS MEDICAL SOCIETY.

PRIZE QUESTION.

Through the liberality of one of its Fellows, the Massachusetts Medical Society is authorized to offer the sum of *One Hundred Dollars* to the author of a Dissertation, which may be adjudged worthy of a prize by a Committee appointed by the Councilors of the Society, on the following subject, viz.:

"*The History and Statistics of Ovariotomy, and under what circumstances the operation may be regarded safe and expedient.*"

Dissertations for the prize must be sent, post-paid, to the Corresponding Secretary, Dr. C. E. WARE, 6 Temple place, Boston, on or before the *first Wednesday* of April, 1856.

The Prize is open to the profession throughout the country.

By order of the Massachusetts Medical Society,

B. E. COTTING, Recording Secretary.

Roxbury, Mass., Aug. 11, 1855.

NEW YORK OPHTHALMIC SCHOOL.

FOURTH SESSION.

DR. M. STEPHENSON will repeat his Course of Lectures on OPHTHALMIC SURGERY, at the N. Y. Ophthalmic Hospital, No. 6 Stuyvesant-street, during the Winter of 1855–6. For further particulars inquire of Dr. S., at No. 167 East 14th-street. The avails of the Course to be given to the Hospital.

Testimonials from the Class of 1854–5.

"*Resolved:*—That we highly appreciate the Professional and Gentlemanly deportment of Drs. Stephenson and Garrish, the attending Surgeons of the New York Ophthalmic Hospital; not only in their skillful and humane attention to the afflicted poor; but also in their readiness to impart clinical instruction to the members of the New York Ophthalmic School."

"*Resolved:*—That the New York Ophthalmic Hospital and School are not the least among the numerous advantages which the city of New York affords to medical pupils, over that of any other on the continent of America."

"*Resolved:*—That we have listened with great satisfaction to the instructive Course of Lectures recently delivered by Dr. M. Stephenson, on Ophthalmic Medicine and Surgery at the Hospital.

Extracts from the published resolutions of the class.

G. F. THOMPSON, M.D.
J. SIMPSON, M.D.
H. L. KELLEY, M.D.
} Committee.

New York, March 1, 1855.

UNIVERSITY OF NASHVILLE.

MEDICAL DEPARTMENT.

The Fifth Annual Course of Lectures in this Institution will commence on Monday, the 29th of October next, and continue till the first of the ensuing March.

PAUL F. EVE, M.D., Principles and Practice of Surgery.

JOHN M. WATSON, M.D., Obstetrics and the Diseases of Women and Children.

W. K. BOWLING, M.D., Theory and Practice of Medicine.

A. H. BUCHANAN, M.D., Surgical and Pathological Anatomy.

C. K. WINSTON, M.D., Materia Medica and Medical Jurisprudence.

ROBERT M. PORTER, M.D., General and Special Anatomy.

J. BERRIEN LINDSLEY, M.D., Chemistry and Pharmacy.

THOMAS R. JENNINGS, M.D., Institutes of Medicine and Clinical Medicine.

WILLIAM T. BRIGGS, M.D., Demonstrator of Anatomy.

The Anatomical Rooms will be opened for students on the first Monday of October.

A full *Preliminary Course* of Lectures, free to all students, will be given by the Professors, commencing also on the first Monday of October.

A Clinique has been established in connection with the University, at which operations are performed, and cases prescribed for, and lectured upon, in presence of the Class.

Amount of Fees for Lectures in the University is $105. Matriculation Fee, (paid once only,) $5. Practical Anatomy, $10. Graduation Fee, $25.

Good boarding can be procured at about $3 per week.

Further information can be obtaind by addressing

J. BERRIEN LINDSLEY, Chancellor of the University.

NASHVILLE, TENN., July 18, 1855.

Castleton (Vt.) Medical College.

There are two full Courses of Lectures annually in Castleton Medical College, the *Spring Session* commencing on the first Thursday in February, the *Autumnal Session* on the first Thursday in August. Each Course will continue four months.

JOSEPH PERKINS, M.D., Prof. of Materia Medica and Obstetrics.

WILLIAM SWEETSER, M.D., Prof. of Theory and Practice of Medicine.

MIDDLETON GOLDSMITH, M.D., Prof. of Surgery.

WILLIAM C. KITTRIDGE, A.M., Prof. of Medical Jurisprudence.

CORYDON LA FORD, M.D., Prof. of Anatomy and Physiology.

GEORGE HADLEY, M.D., Prof. of Chemistry and Natural History.

ADRIAN T. WOODWARD, M.D., Demonstrator of Anatomy.

FEES.—For Lectures, $50. For those who have attended two Courses at other Colleges, $10. Matriculation, $5. Graduation, $16.

Board per week, $2 to 2,50. J. PERKINS, M.D., *Dean of the Faculty.*

CASTLETON, VT., Jan. 1, 1855.